NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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JOEL NOURSE, Proprietor, Office....Quincy Hall. SIMON BROWN, EDITOR. FRED'K HOLBROOK, } Associate HENRY F. FRENCH, } Editors.

CALENDAR FOR FEBRUARY.

"Loud howls the wind along the vale!
Shipwreck and death are in the gale!
Soon, weary travellers, as they go,
Are wildered in the trackless snow,
And dread, at every step, that sleet
And snow may be their winding-sheet."

EBRUARY, in this latitude, is usually a blustering month. December commonly gives us a strong nip of Winter for a week or two, then it seems to rest awhile in order to get breath. Then January comes with occasional warm south winds and showers; bare spots are in the fields and runners grate harshly on the gravel roads; silver streams glide on the clear ice, and the robins, perhaps, leave the thick swamps and make us a visit; but it is a brief one, for the north wind suddenly assumes the mastery. The elm tops sway and yield to its fierce breath; all is frigidity and congelation again; the condensed ice cracks like pistol reports, and wakens the drowsers in the chimney corners.

So all the Months have their peculiar characteristics. The agreeable author of the "Mirror of the Months" says "some one has said of the Scotch novels, that that is the best which we happen to have perused last. It is thus that I estimate the relative value and virtue of the Months. The one which happens to be present with me is sure to be that one which I happen to like better than any of the others. I lately insisted on the supremacy of January on various accounts. Now I have a similar claim to put in in favor of the next in succession. And it shall go hard but I will prove, to the entire satisfaction of all whom it may concern, that each in her turn is, beyond comparison, the 'wisest, virtuousest, discreetest, best.' Indeed I doubt whether, on consideration, any one (but a Scotch philosopher) will be inclined to dispute the truth of this, even as a logical proposition, much less as a sentiment. The time present is the best of all possible times, *because* it is present—because it *is*—because it is something; whereas all other times are nothing. The time present, therefore, is essentially better than any other time, in the proportion of something to nothing. * * * The cleverest Scotch philosopher that ever lived has said, in a memoir of his own life, that a man had better be born with a disposition to look on the bright side of things, than to an estate of ten thousand a year. He might have gone further, and said that the disposition to which he alludes is worth almost as much to a man as being compelled and able to earn an honest livelihood by the sweat of his brow! Nay, he might almost have asserted that, with such a disposition, a man may chance to be happy even though he be born to an estate of *twenty* thousand a year! But I, not being (thank my stars) a Scotch or any other philosopher, will venture to go still farther, and say, that to be able to look at things *as they are*, is best of all. To him who can do this, all is as it should be—all things work together for good—whatever is, is right. To him who can do this, the present time is all sufficient, or rather it is all in all; for if he cannot enjoy any other, it is because no other is susceptible of being enjoyed, except through the medium of the present."

Head Work.—We trust the suggestions in last month's calendar to improve the head as well as to occupy the hands, have had due consideration, and that this important work will be continued through the month of February.

Plans.—The work of spring and summer should be arranged now while there is leisure to consider it in all its bearings. What fields shall be devoted to corn, oats, barley, wheat, potatoes? Where the peas, beans, turnips, carrots? Where the early vegetables, the tomatoes, radishes, egg-plants,

cabbages? What breadth in each of the principal crops, how much seed per acre? What trees shall be planted, and what location shall they occupy? How much stock shall be summered, which oxen or cows sold or fattened, and how many swine kept? Shall the Garden have a small assortment of choice pears—the Bartlett, Seckle, Vicar of Winkfield, Beurre d'Aremberg, Bloodgood, Louise Bonne,—a few choice raspberries and currants, together with a grape vine or two of the best varieties? Shall beds be formed for permanent use to be stocked with the best early vegetables, parsnips, onions, carrots, beets, radishes, tomatoes, asparagus, celery, lettuce, parsley, and patches for cucumbers, early squashes, cabbage, cauliflower, melons, beans and peas? These will promote health, and afford a constant supply of delicious summer food, save the money in your purse, and embellish the ground about the house.

Sheep and Lambs require especial care in February. Leave it optional with them to go out or remain under cover; feed liberally with hay—sweet clover hay they relish highly—and give them occasionally any juicy roots cut finely, or a few beans, or a little corn or barley. They will then bring strong lambs. Throw into their yards also, evergreens of pine, hemlock or spruce boughs.

Cattle and horses will need the *card* as well as timely and liberal feeding; milch cows, especially, will find much benefit from the use of the card.

When the plans alluded to are made, the stock all fed and warm, the wood-pile lusty in its proportions for another year, and the children with lessons well conned for the morrow's recitation, are mingling in the social conversations around the evening fire, what prince or potentate but would envy the farmer his simple and pure delights, his hours of unalloyed domestic bliss!

February, cold and rough as it is, is none too long for households such as these.

For the New England Farmer.

THE POTATO---CURCULIO---SHAD-BUSH.

Mr. Editor:—I am going to write something about the potato, the curculio, and grafting the shad-bush; I hired one-fourth of an acre of land in a field where some four others hired from one-fourth to three-fourths of an acre each, and all planted potatoes, the rows running north and south. After my first hoeing, I put on ashes and plaster, and the piece east of mine was served the same. The potatoes that I planted were not large, and were cut, the same as on the piece east, and the piece next west, (three-fourths of an acre,) the potatoes were whole and mostly large that were planted. A short time before my last hoeing, I read in the *New England Farmer* that salt mixed with plaster, in proportion of two of plaster to one of salt, would prevent potatoes from rotting. I therefore, after my last hoeing, (I hoed them three times,) applied the salt and plaster, and in less than three days there was a perceptible difference between mine and the other potatoes; mine were much greener and more thrifty than the others. I had from my one-fourth of an acre forty-one bushels of good sized potatoes for cooking, and only three bushels of small ones; and the three-fourths of an acre west of mine, that was planted with whole potatoes, had some eighty bushels only, and from their appearance after being dry, whilst lying on the ground, I should think, at least, that one-fourth were too small to cook. The potatoes east of mine were better than those west, and mine were judged to be much the best in the field. What made the east potatoes better than the west? Was it the one application of the ashes and plaster, or was it because they were cut before planting? And what made mine the best in the field? Was it the third hoeing or the salt? I leave it with the lovers of good potatoes to find out by trying the experiment.

One word about destroying the curculio. I commenced last spring, soon after my plum trees were out of blossom, to throw dry ashes on them in the morning when the dew was on; I applied it but a few times, when I read in the *Farmer* that some one had saved his plums by throwing on soap suds; I therefore applied the suds until I read the next *Farmer*, where I read that some one had saved his plums by the use of lime water. I then used the lime water, and succeeded in raising a large crop of very nice plums, whilst one of my neighbors raised but very few, and that one by the use of a few applications of lime water. So you see that lime water would answer the purpose if applied often enough.

In the *Farmer* of Nov. 25th, there is a letter from "Far East," recommending the shad-bush as a substitute for the quince for raising dwarf pears. I will tell you how near I came to getting a dwarf from a shad-bush. Some twenty years since I was grafting pears in the back part of my lot, and having a scion or two left, I inserted one in a shad sprout, some three-fourths of an inch through and six from the ground, merely for pastime, not even thinking it would grow; but the first time I passed that way I discovered that it was growing nicely. I watched it through the summer, tied it up occasionally, and in the fall, after the leaves had dropped, I measured it, and it had grown over seven feet, and had much more the appearance of a grape vine than it did a dwarf. It grew and bore pears some two or three years and died, but the pears were always dwarf, quite small of their kind.

Yours ever, Not Far West.

Shelborn, Dec. 28, 1854.

Pears.—We would call the attention of the reader to the article on "Pears," as it is from a gentleman who has given the subject much attention. We welcome him heartily to our columns, and hope to hear from him as he proposes.

The Centenarians.—Forty-seven persons died in the United States during the past year over 100 years old. Of these, one was 128, one 130, and one 146. The eldest was a negress. United ages of the forty-seven, 5268 years.

For the New England Farmer.

GRASS CROPS.

REPORTED TO THE CONCORD FARMERS' CLUB BY JOHN B. MOORE.

MR. PRESIDENT :—Of all the crops grown in New England, perhaps the Grass crop is the most important to the farmer, from the fact that for the whole year the cattle, horses and sheep depend mainly upon the grass and hay for their sustenance.

And the farmers procure just what they want from keeping this stock, and what they must have, that is, a large quantity of manure for producing this and their other crops and increasing the fertility of their land.

In no other way can they get manure so conveniently as by consuming the grass and hay on their farms. He who improves the capacity of his farm for producing grass for feed, or curing for hay, and then consumes the same, or if he sells it, buys manure to replace what it would make, and also takes good care of the same, will, in a short time, increase the productiveness of his land, and not only enable him to raise larger quantities of grass, but also of grain, roots, and other vegetables.

And in fact, nearly every thing in our New England farming depends on the grass and hay, for if we do not have a good supply of these, of course we cannot keep a large stock of cattle, and we must keep this stock or we shall not have much manure. If we do not by manure enrich our soils, we shall fail to produce good crops, and poor crops do not pay.

As to the manner of cultivation, we do not expect to impart any new ideas, but merely to state some of the best methods now in use with which we are acquainted.

For high lands, spring seeding with small grains, particularly barley, or planting corn, cultivating it with a flat surface and seeding to grass in July, perhaps succeeds better than any other way on very dry soils.

On low, moist upland, and reclaimed meadow, plow in August and September, roll down the furrows, put as much compost manure as you can spare—not less than twenty ox-cart loads to the acre, and more would be better—harrow well both ways, then sow about 1½ pecks herdsgrass, and 3 pecks red-top seed per acre ; cover with a brush—harrow, pick the stones, and finish by rolling down smooth. We formerly sowed a larger quantity of seed, but found after the first year that it made too thick a sward.

Clover we consider a good crop to grow on dry soils ; and probably the best way to produce it is to sow it with the other grass seeds. On dry land the first crop will be increased largely by the addition of the clover ; this we would advise to use for home consumption, and not for market.

Your committee are satisfied that we must depend upon our low, moist soils, for most of the grass that we cure for hay. Upon almost every farm there is more or less low-land, covered with brush, or wet meadows and swamps, which are unproductive in their present condition, but may easily be made the best and most productive grass land on our farms, and after being reclaimed, will produce much more grass with the same manure and labor than dry soils.

Then as to curing, cut when in full blossom if you can ; where there is a large quantity to be secured, it is necessary to begin on a portion as early as possible, so as to enable us to get through before it is over-ripe. There is, however, quite a difference of opinion with good farmers as to the time when it should be cut, so as to make the most nutritious hay.

We would also say that it has been our experience in reclaiming meadows and swamps, that to produce a large crop of good grass, it is necessary that the land be well and thoroughly drained, and have a good dressing of sand or gravel, or a large portion of the same in the compost manure applied before and after seeding. Otherwise, however well manured, there will be a weakness of the straw, which will cause it to fall and rot before it has time to grow to be a full crop.

We have also examined the crops of grass grown on meadows reclaimed in various ways, and in our opinion the too common practice of burning the entire top soil is a bad one. Although the first crop will probably be good, the land and after crop will be much larger and better without the burning than with it ; burning leaving a tendency to moss and wild grass.

There are acres of this burnt land in our own town, that, after one or two seasons, have run back to wild grass, and which it will require nearly twice as much manure to keep in good condition than it would if it had been reclaimed in a different manner.

You will see the importance of this leading product of our farms ; with it, we are enabled to supply ourselves with a plenty of beef, mutton, and milk ; the product of the last named has become a very large business near the cities and large towns, our own town furnishing not less than 1200 gallons daily for the Boston market, besides milk and part of the butter and cheese for our own consumption ; all of which is almost entirely dependent on the grass, and hay made from the same.

Then let us increase largely the quantity and quality of this product of our land, not feeling satisfied to produce any less than two tons per acre, and, as before stated, by largely increasing the same, we are, by the manure made from it, enabled to increase every cultivated product of our land.

For the Committee,

Dec., 1854. JOHN B. MOORE.

THE OLD FARMER'S ALMANAC.—JENKS, HICKLING & SWAN, Boston, have published number *sixty-three* of this old favorite of the farmer. It tells us almost everything about the stars and eclipses, and how to cast the interest on our bank stock ; tells us of the commencements, American Presidents, uncurrent bank notes ; when to look out for a snow storm, and a high tide, and has twelve capital little sermons on its calendar pages. And then it asks a "heap of such curious questions," and gives "lots" of good advice in various ways. How should we know anything when to plow or sow, kill our hogs or salt the pork, without the "*Old Farmer's Almanac* by Robt. B. Thomas ?"

A LESSON IN ITSELF SUBLIME.

A lesson in itself sublime,
A lesson worth enshrining,
Is this—"*I* take no heed of time,
Save when the sun is shining."
These motto words a dial bore,
And wisdom never teaches
To human hearts a better lore
Than this short sentence teaches.
As life is sometimes bright and fair,
And sometimes dark and lonely,
Let us forget its pain and care,
And note its bright hours only.

There is no grove on earth's broad chart
But has some bird to cheer it;
So hope sings on in every heart,
Although we may not hear it;
And if to-day the heavy wing
Of sorrow is oppressing,
Perchance to-morrow's sun will bring
The weary heart a blessing.
For life is sometimes bright and fair,
And sometimes dark and lonely,
Then let's forget its toil and care,
And note its bright hours only.

We bid the joyous moments haste,
And then forget their glitter—
We take the cup of life, and taste
No portion but the bitter:
But we should teach our hearts to deem
Its sweetest drops the strongest;
And pleasant hours should ever seem
To linger round us longest.
As life is sometimes bright and fair,
And sometimes dark and lonely,
Let us forget its toil and care,
And note its bright hours only.

The darkest shadows of the night
Are just before the morning;
Then let us wait the coming light,
All boding phantoms scorning;
And while we're passing on the tide
Of Time's fast ebbing river,
Let's pluck the blossoms by its side,
And bless the gracious Giver.
As life is sometimes bright and fair,
And sometimes dark and lonely,
We should forget its pain and care,
And note its bright hours only.

For the New England Farmer.

REMARKS ON COWS.

MR. EDITOR:—I was much pleased with the good sense manifested in your description of a cow for family use, in your last paper. Just after I read that, I took up an excellent paper, published at Manchester, N. H., in which was copied from the London *Agricultural Gazette* some remarks about "an extraordinary cow." I was curious to know what was deemed an "extraordinary cow" in London. This animal is said to have yielded fifteen quarts of milk daily, on grass feed alone, four months after calving, of a quality to give eleven and a half pounds of butter in a week. Pretty well this, but how does it compare with what is said of some of the cows and heifers of your own Middlesex? If I do not mistake, gentlemen there have boasted of their Devon Stock, as yielding products far better than this. Milk of a quality to give a pound of butter to each and every *four quarts*,—on grass feed alone. This may be so, but I never could give full credit to the statement, and do not now. It seems to me hardly possible to find a cow that will give milk, that will yield more than a pound of butter to each and every eight quarts of her milk—whatever may be the breed. If I could find a herd of cows that would do this, I should be satisfied. INQUIRER.

Dec. 25, 1854.

For the New England Farmer.

MORTGAGES—SHADE—CRITICISM.

"*A Medley.*"—As this article in the January *Farmer* is devoted to myself, I wish for a little more space in reply than would be admissible in the narrow limits of my usual monthly review; not so much from any desire or intention of controversy as for an opportunity of giving the reasons for my caution against mortgages. Agreeing perfectly with friend Durand, that every writer should be allowed his own "say," I have never supposed that any of my running comments could be considered as an infringement on this privilege, especially as I fully believe in the correctness of the sentiment, bluntly expressed by old Dr. Johnson to one of his sensitive friends, "Depend upon it, sir, no man was ever written down but by himself."

Regarding the subject of mortgages as one of vital importance to the young farmer, and believing that a false step on this ground is often the most fatal and irretraceable of his whole course, I am induced to give somewhat in detail my personal experience with mortgages, although by so doing I expose myself to the charge of egotism—but, "how can we reason but from what we *know*."

For the sake of distinctness, we will allude to our experiences in the mortgage line, as they occurred in the order of time.

No. 1. The small fund of money that I saved of my earnings, for some three or four years after twenty-one, was devoted to a debt on the homestead, that descending from my grandfather, was lived under by my father, and, after myself, was assumed by two others of his sons; yet the old farm had to be sold at last, and the family name of your humble "commentator" passed from the title-deeds to the "ancient domain." Among the earliest recollections of my boyhood, that of the efforts of my parents to "raise" the means for paying "the interest" is not the most pleasant. That favorite colt, that web of cloth spun by my mother's own hands and needed by the backs of her boys, and many other things that went, not to kill, but merely to keep alive, that mortgage, are among the indelible impressions of my "first experience."

No. 2. I loaned some money to a man in Michigan, whose land was paid for, and who had put up one of the neatest log-houses I ever saw. Three split logs, placed one above the other, were of such size as to raise the walls sufficiently high for the roof, giving a comparatively smooth ceiling, and a look of solidity and comfort within, far superior to the usual style of smaller, unsplit logs. The good woman "shuddered" at the idea of a mortgage, and, with tears said to her husband, "It will turn us and our children out of the home we have labored so hard to make comfortable." But, almost in the language of

Mr. Durand, he replied, "I cannot afford to let our land lie idle,—there is no *if* nor *and* about it,—I must have a team and do something." He did have a team, and soon told me he had thirty acres in wheat, but then he must have a large barn and other "improvements," which left nothing from his crops for the mortgage. The result was, that long after the mortgage was "out," not having enough of the Shylock in my composition to "foreclose," an exchange for newer and cheaper land was effected; and if the good woman and her children were not exactly turned out of house and home, as she predicted, they had to exchange the old home, with its garden and beautiful young orchard, for one without these comforts, and without the associations that cluster around the "first place." Nearly twenty years have elapsed, and that mortgage is still alive—only a part of the principal, to say nothing of interest, then loaned, has found its way back to my pocket.

No. 3. Secured by a mortgage on a small New England farm, I loaned a small sum of money. The mortgagor never paid a cent of either principal or interest, but long after the notes were "over due," they were paid in full by a son of his who was a merchant's clerk, and wished to give his parents a home.

No. 4. Lastly, for a few years as mortgagor, I have tried "living under" a mortgage on a small farm. I had but just shaken it from my shoulders, when I commented so warmly upon Mr. Durand's recommendation of mortgages, and made the awkward, but, I think, very natural comparison of the "nightmare." With a pretty large family to support, with semi-annual interest to meet, with a grim "principal" looming up in the rear but *not* in the distance, and with the income of the labor of but a single pair of hands, if a man don't experience something like the "nightmare," then what does he experience?

So much for my trials of mortgages. From what I have seen of their operation in other hands, I believe that my four experiments may be taken as a fair average of the whole, were their history to be as honestly written.

We thence infer that of every four mortgages which are fastened on farms, two, or one-half of the whole, unhouse the mortgagor or his descendants; and of those that are paid, one-half are indebted to trade, or some source other than farming, for the means with which it is done.

Did I, then, make "an uncommon great bugbear out of very small materials?" "A little shows what a great deal means;" and on this principle I wish to be excused for parading so much of my personal history, and for my appreciation of the "materials" it affords, not to "frighten" but to caution.

In contrast with the mortgage principle in general, and with that of my No. 3 in particular, as well as to illustrate the truth of the adage, that "where there's a will, there's a way," even without a resort to mortgages, I wish to give the outlines of the history of another Michigan farmer, who had just money enough to "take up," at government price, an eighty-acre lot of timbered land, pay for a cow, a small pair of oxen with yoke and chain. Felling a few trees, his neighbors helped him put up a cabin. With his axe and a borrowed auger he made chairs, tables, milkpans, and a bedstead which was corded with strans of bark.

He then went bravely at the giant oaks but it was slow work to clear off their huge trunks, and he soon saw that himself and wife, his oxen and cow might starve before he could get in and harvest a crop. He was ashamed to beg, and would not borrow. So he broke up "housekeeping," left his land to "lie unimproved," and let himself by the month to purchase provisions for a future campaign against the noble old forest monarchs. After clearing land a few years, but making rather slow progress, he exchanged his eighty acres of timbered land for one-half as many of "Openings" which were mostly subdued. Here he soon got a start in the world; improved his buildings; bought more land; collected about him the conveniences of life, and years ago, admitted to me that he had as much property as he wanted.

I will here remark, that I regard a mortgage for the purchase-money of real estate, as quite a different thing from one for "improvements," or conveniences of any kind. Two of my four mortgages were given for the purchase-money of the premises; and both these were paid off. But enough has been written on this topic for once, and we leave it here.

When I wrote the caption of this article, I thought of making some remarks upon Mr. Durand's stricture on my comments on "Improving Soils by Shade." If he will read the first column of that article on page 499, November *Farmer*, in connection with his own strictures, I am willing to abide the decision of the tribunal to which he appeals, waiving my right to the "closing argument." The space he occupies with comments on a few lines from my review, will suggest to him the impossibility of my profiting much by his advice. To place the leading, or some striking idea of an article in a position that shall excite curiosity, or to present some additional hint or fact, has been the humble object of my monthly medleys. Anything like the plan suggested by Mr. Durand would occupy quite too much space. If I have done his articles injustice by my brief extracts, or by unfair criticism, it was certainly unintentional. Of all the many writers whose labors have done so much to give the *Farmer* a reputation for sound sense and practical value, he is the last one with whose feelings I would intentionally trifle. A READER.

Winchester, 1855.

A HOME FOR ALL.

Under this attractive title, the house of *Fowlers and Wells*, Publishers, 142 Washington St., and 308 Broadway, N. Y., have issued a neat volume of 200 pages, written by O. S. FOWLER, one of the firm. It describes the gravel-wall plan, of building, and discusses the following heads:—1. Nature's Building Materials. 2. Wood is objectionable. 3. Brick. 4. The Lime, Gravel and Stone Walls. 5. Selection of the material. 6. Lime, its proportion, and mode of mixing. 7. Placing and working the mortar-bed. 8. Relative cost of the gravel-wall. 9. Foundations. 10.

Mode of placing the boards for boxes. 11. Scaffolding. 12. Width of walls and their solidity. 13. Door and window frames. 14. The top of the wall. 15. Chimneys, ventilation, &c. 16. Outside and inside finish. 17. Cost of the gravel-wall. 18. The quality of this gravel-wall, and, 19. Vermin are excluded from it. The work is not confined, merely, to the subject of constructing buildings on this plan, but speaks of the requisites of a good, comfortable home, and some of its embellishments. Those who intend to build may find this book valuable to them.

For the New England Farmer.

PLOWING LANDS IN AUTUMN.

Mr. Editor :—I was surprised to see my name in your paper under a private communication requesting you or some friend to write, (if you thought best) against a prevalent practice which I considered detrimental to good husbandry, viz.: Plowing lands on which corn and all hoed crops had been raised the past summer, and which had been highly manured the previous spring. I regret that I was understood in that communication to be against fall or autumn plowing, excepting the lands above named. I know that all grass or stubble lands should be plowed early in the fall, before the frost kills the vegetation. The difference between plowing such lands before or after the vegetation is killed is similar in point of economy, to plowing in a field of clover in its green state, or letting it remain until it is nothing but dry straw.

I was as much surprised at the remarks of your correspondent, "A. K. P. W.," as he was at mine. I did not believe there was one farmer in New England who had given the subject due consideration, that would say the manure left on the surface by the last hoeing, say in the middle of July, and remained there until the middle of November, (four months) would retain much if any of its fertilizing properties, or that it would be good economy to plow up a fresh supply of inexhausted manure to cover the little that remained on the surface which had been already exhausted in promoting the growth of the last crop. Such a course would expose that fresh supply to be exhausted by inhalation for the ensuing six months, without a particle of benefit to the next crop. "Money makes money," it is the same with manure.

"A. K. P. W." says that fall plowing kills the insects which destroy the crops. It may be so, but a New England farmer who will not husband his manure to the best advantage, will not long have crops for himself or insects to destroy. He also says that lands plowed in the fall stand the drought better than if plowed in the spring. If so, that must be attributed to some peculiarity of his soil.

As manure is the great desideratum, I would ask, what is the best method of rendering *one dressing* of manure the most valuable for the several succeeding crops?

Yours respectfully,

H. S. Perrin.

Orfordville, Dec. 18, 1854.

For the New England Farmer.

SELECTION OF APPLES.

In grafting or planting an orchard, it is of the utmost importance to obtain the best varieties under cultivation, those which are productive, the fruit of the first quality and the trees hardy, and vigorous growers. In selecting, we should approach as near as possible to this standard, although there are but few varieties that unite all these qualities. Varieties are so numerous at the present day, that recommending a selection for cultivation is rather perplexing and difficult. There are many kinds which rank as first-rate, although there is a difference of opinion with regard to some of them; this is not surprising as tastes differ. An apple which one might pronounce first-rate, and which, indeed, might be so, another, perhaps, would call second-rate: yet there are kinds with respect to which nearly all are agreed, and which are universally known as first quality; these should be extensively propagated. Having been engaged in grafting, many years, I have had an opportunity to learn something by experience and observation of many varieties. Although my knowledge of the subject is limited, compared with many others, I propose to name a few varieties for cultivation, having been familiar with them all for years, and found them all things considered, among the best. I can with confidence recommend the following list, nearly all of which may be found described in Cole's fruit book.

Early Williams,	Early Bough,
American Red Juneating,	Leland Pippin,
Gravenstein,	Porter,
Shirley Apple, or Foundling,	Superb Sweet,
Spice Sweet,	Danvers Winter Sweet,
Hubbardston Nonsuch,	Rhode Island Greening,
Willis Russet,	Roxbury Russet,
Minister,	Seaver Sweet,
Mother,	Jewett's Red,
Baldwin,	Priest Sweeting.

Leominster, Dec., 1854. O. V. Hills.

For the New England Farmer.

THE DIANA GRAPE.

Mr. Brown :—In the "Transactions of the Middlesex County Agricultural Society for the year 1853," which I had the pleasure to receive from you, I find the following, speaking of the fruit exhibited: "Hovey & Co. had a plate of the famous Diana Grapes. They seem to be a cross between the Sweetwater and Hamburg. We understood that they are ripened with difficulty in the open air." Let us examine this statement and see if it is correct. When I first saw the above I was inclined to think that it was a mistake of the printer—that unfortunate class who have to shoulder so much blame—but if it was, why did not the proof reader find it out and correct it, or did he not know but what all that was said would apply to this variety of grape? That the Diana is a famous grape I will not deny; it is bound to become more so: but that it is a cross between the Sweetwater and Hamburg I do deny, as it bears no relation to either of those varieties in any respect. It was raised from a seed of the Catawba, by Mrs. Diana Crehore, of Milton, Mass., who received the grapes from Squire Seaver, of Roxbury, who had a very flourishing vine of that variety, which, though its

original owner is dead—still lives. It was originated several years ago, and shown at the Mass. Hort. Society, when their rooms were in Tremont street, and named by the Society, in honor of its originator. Until within the last five years it has attracted but little attention. "We understood that they are ripened with difficulty in the open air." A greater mistake could not have been made, and I am surprised that any Committee that had had any experiences or associated with those who had, or even read the reports of the different Agricultural and Horticultural Societes, should ever prepare such a statement for the press. The great merit of this variety is in its early ripening,—a fortnight at least before the Isabella, and four weeks before the Catawba. The greatest grape grower of Massachusetts says it will be fifty years before we get a grape superior to the Diana, that it will ripen when the Isabella will fail. I will not accuse the committee of making this wrong statement for any selfish or wrong motives, nor am I disposed to find fault with their report merely for the sake of finding fault, but because I saw that such a report was calculated to do mischief by leading people astray. I think it will be hard to find a better hardy grape, or one that ripens earlier.

Newton Centre. J. F. C. H.

For the New England Farmer.

LIME—SALT—THE CORN CROP.

Messrs. Editors:—I have read something of Prof. Mapes' ideas of using salt as a manure in connection with lime. The lime is to be slaked with a solution of common salt, and to be used for sowing broadcast with oats, etc. We wish to know whether this manure "will pay" when lime costs $3,00 per tierce and salt 5s. per bushel. Also we want to know how much of the preparation "will pay" to lay on an acre, and, also, why it will not answer to apply it to the hill for corn? I have tried the old fashioned method of raising corn, and raised from 25 to 40 bushels to the acre, until I think I can improve the crop by improving the method of cultivation. The following is the plan I propose "doing the corn business" next year. I have a piece of land with a smooth, rolling surface, and moderate southern slope. The soil is somewhat sandy, light, with heavy clay bottom; it has been plowed usually 4 inches in depth, and the crops taken off since the "memory of the oldest inhabitant;" consequently the surface was nearly exhausted to the depth of four inches when I plowed the field two years ago, manured broadcast with about 25 loads to the acre, and planted to corn, producing a fair yield. Last year it was manured broadcast and plowed in, producing a very heavy crop of oats. About 16 loads to the acre were plowed in for the oats. On this piece I propose raising corn next year. I shall spread and plow in (ten inches deep) 40 or 50 loads of stable manure to the acre, harrow well and plow again crosswise; harrow again, and strike the furrows 3 feet apart and about 8 or 10 inches deep, then cross-furrow the same depth. Then take a bag of guano (Peruvian) on one side, and a bag of seed-corn on the other; with a hoe I will fill the furrows where they cross each other; mix a little of the guano with the soil, and plant my corn.

About the second or third hoeing I will put into each hill a spoonful or more of guano and hoe it in. I have always put a portion of my manure into the hill, sometimes as much or more than I spread before plowing. My corn has always been remarkably thrifty, until about time for the ears to form, when the plant would seem to want sustenance to finish its work, consequently I would get a full growth of "fodder" and a moderate yield of corn. I think the corn plant is benefited by the manure in the hill during the time its stalks are growing, say in May, June and July, when the periphery of the feeding roots extend far beyond the circumference of the hill leaving few feeding roots near the centre of the base of the plant. Now it is not to be wondered at if the manure is chiefly placed in the hill, that the plant should be thrifty while the extremities of the roots are working their way through the hill; nor is it any more strange that the earing should be moderate when their supplies are furnished by roots which have extended their feeders far and wide, until their extremities meet and mingle with the roots of neighboring hills. The fulness of the ear and kernel must in a great measure depend upon the supply of nourishment found by the roots after they have extended from the hill. If the manure be mostly spread and plowed in, we expect that it benefits the crop most when it is most needed, viz.: when it is forming the kernel.

The corn crop draws the base of its support from the ground; its roots extend wide and deep; their microscopic filaments absorb only the moist minute particles of nourishment which pass along the vessels undergoing chymification and chylification, a complete process of digestion, until it is fitted and entirely adapted to invigorate the system that has taken it. It converts the gross particles of the earth into sugar for the stalk and milk for the seed.

Chemically viewed, the corn plant is a laboratory compared to which Prof. Mapes' is but a shadow. Its crucibles are self-formed from its germ; its furnace the glorious sun; its material elicited from the gross matters that compose the crust of the earth itself; its experiments always successful, and its product what no human art can equal—a golden ear of corn.

Physically, it may be compared to the human digestion, first dissolving its food, then separating its chyme and chyle, and conducting the refined matter along various channels and through various organs, eliminating all the secretions necessary to its own growth until it is lodged in such parts, where it is needed to form and sustain the perfect man.

The growth of the stock is of less consequence than the production of the ear. The stock is mostly formed when the supplies are largely drawn from the hill, and the ear when the material is gained mostly from the adjacent soil, in the latter part of July, August and early in September.

The largest growth of stocks is not necessary to the greatest production of corn, yet it is necessary to get a certain amount of vigorous stock in a healthy and thrifty state, when the ears set and the fall feeding is to commence to form the kernel. If an adequate supply of nourishment is placed within reach of the plant at the

right time the ears will be numerous, large, long and well-filled, the kernel plump, fat and shining, other things being equal.

To conclude, I should expect the greatest yield of corn to the farmer, who, (*ceteris paribus*) furnished the largest supply of manure and *commingled it to the greatest depth and in the most intimate way with the soil*, planting properly, and keeping down the growth of all extraneous substances.

The average corn crop in the southern part of Vermont, as far as my acquaintance extends, is, in my opinion, not over 30 bushels to the acre. Some few poor farmers I know, who do not get 20 bushels to the acre, whilst others average, taking the years together, over 60; very few 80; and rarely do I see a crop that yields 100 bushels to the acre. The town of Guilford, I think, will compare favorably with the average of towns in the south part of Vermont, for it exports more than it receives from other towns.

This town produces about as much pork as is consumed, quite a surplus of beef and butter, about its own supply of cheese, and a surplus of oats, barley and most kinds of fruit. The exports of fruit consist chiefly of apples, pears and peaches, some of which are not exceeded. A few of our farmers are beginning to give a share of attention to growing some of the finer varieties of the grape, which, at present bid fair to be remunerative. Quinces, wool, and early lambs for market, are no small sources of revenue to many of our friends. E. G. Cross.

Guilford Centre, Dec. 8, 1854.

For the New England Farmer.

ANCIENT LANDMARKS.

In this day of progress extraordinary, by the power of steam and with the speed of lightning, it is gratifying to find some things stable and unshaken. Never were we more strongly impressed with this sentiment, than on turning over the leaves of the 36th Annual Report of the Worcester Agricultural Society. Thirty-six years ago, thought we, who were then in the ascendant, and where are they now! Nearly all those in active life then have passed away. One honored name still remains, vigorous and instructive, as appears upon these pages. Hence a lesson, despise not the instruction of the Fathers. "Young folks think old folks fools—Old folks know young ones to be so." If we do not mistake, this modest volume of about 100 pages will be found to contain lessons of instrruction, worthy of preservation. None of your images stuffed for show—but real substantial matter. We refer particularly to the statements and reports on the management of *farms*—of *dairies*,—of *root crops*, &c. The wit poured out on swine, and other kindred topics, will do very well at the table, but is hardly worthy a place on the shelf of a library. It requires a Fessenden, a Lincoln or a Poole, to use wit on topics agricultural, in a manner that will not become stale.

We trust the dairy experiments in this volume will commend themselves to the favor of those who elicited them. We had almost despaired of anything *good* (except good dinners) coming from the efforts of the Mass. Society. But when we see such products, as have been brought forth at Worcester and at Barre—and know that there are other towns in other counties, that can do as well or better, if tempted to undertake it, we have hope remaining, that the days of "*improvement* in agriculture" have not all passed away; —and that the *ancient landmarks* are still worthy to be regarded with respect. Essex.

Dec. 26, 1854.

TRAINING HORSES FOR THE SADDLE.

We have always been of opinion that horses were used under great disadvantages, irksomely to themselves, besides awkwardly and annoying to their riders who had not been educated, or, as it is called, "broke in," for the purpose for which they were intended. Compared with the number who receive no "breaking" at all—or none save what little they get to quiet them to domesticity, from the hands of the country "colt breaker," how few are they who have once had a schoolmaster's whip over their heads. And yet, mount an animal of this numberless class, and then afterwards throw the leg over a really broke or managed horse, and the difference is likely to prove as great as—speaking not so very wildly—between riding a horse and riding a cow. True it is, with persons who do not from experience understand this, riding is riding, so long as it be on horseback; but a true and expert horseman would as soon ride a donkey as an awkward, no-mouthed, no-paced horse.

On all occasions it is a consideration of moment to avoid alarming a horse; and although this applies to every hour of his life, it is of greater consequence with young than with aged horses; that is to say, young ones will be alarmed at trifling objects, which at a future age they would not notice.

The control which we acquire over the horse depends upon the mouth, and likewise a vast proportion of the agreeable or disagreeable associations which render exercise on horseback pleasant or toilsome. A good mouth is the medium by which any improvement in the natural carriage of an animal is to be accomplished. When going at a slow pace, the way in which a horse carries himself may, to a very considerable extent, be controlled; but when at full speed, or even when nearly approximating that pace, his unrestrained action must prevail. By habit in the slow paces, improvement in the faster ones may be slightly obtained; but that must be brought about by very moderate attempts, otherwise the action of the animal, far from being corrected, will inevitably be rendered worse. A horse that bends himself nicely, is undoubtedly more pleasant to ride than one which runs with his nose down to his knees; or the reverse, with his head in rivalry with that of his rider; and such defects are, in most cases, capable of correction if properly treated in juvenile days; but too much constraint is adverse to pace both for racing or hunting. When a horse carries his head too high, it may, in many instances, be remedied by using a curb, without any port, but with rather long cheeks, and the curb chain hung quite loose. Accompanied with good hands, this often produces an excellent effect, especially with young horses, which are disposed to contend against the control of a martingale.

It may appear as a contradiction, but when

horse carries his head too low, a curb bridle will often be found the best remedy; and the contradiction is cleared up by the remark, that it is the way of adjusting and using the curb, that the difference of effect is produced. For the latter purpose, a short-cheeked bit, when judiciously used, will, with many subjects, be found effectual; and, in order to render it so, the hands must be raised higher than usual at the precise instant when the animal endeavors to drop his head; by this means the curb is brought into action, but should be again released when a proper position of the head is obtained. This should be particularly attended to, for such horses are very subject to hang on the bit—an imperfection likely to increase with age, if not counteracted. Although I so far advocate the use of double rein or curb bridles for certain purposes, let me not be misunderstood as recommending them for general use; quite the reverse. A horse with a good mouth, carrying his head in the true position, never goes so freely and pleasantly to himself, as with a snaffle bridle; but it is to teach the horse how to carry himself, that the curb is in many cases of great utility.

STANDARD CLIMBING ROSES.

Our engraving represents the standard climbing roses, formed by budding the different varieties of climbing roses upon stocks of the standard varieties. We sometimes see stocks like miniature trees; and these, by some of our most enthusiastic rose growers, have been transformed into "weeping tree roses"—the most beautiful ornaments for lawns and gardens which can be imagined. Mr. Rivers, an English floriculturist, was one of the first to illustrate and draw attention to the matter. He speaks of them as follows:—

"Some six years since, having some rose-stocks five or six feet high, and stout as broom-handles, I was induced to try what effect some of the beautiful varieties of Rosa Sempervirens would have if budded on them, as I had some latent idea that they would form very graceful pendulous trees; I accordingly selected from that family a few of its most interesting varieties. These trees are, in the blooming season, pictures of beauty; not a shoot has ever been touched by the pruning-knife; there is consequently no formality; their beauty consists in their gracefulness and rusticity, which is quite refreshing in contrast to the closely pruned heads of the finer varieties of standard roses."

Mr. Barry says that our native sweet brier, to be found in all parts of the country, is one of the best stocks for the purpose. The double prairie roses, Queen of the Prairies, Baltimore Belle, Perpetual Pink, and other varieties, furnish flowers of the proper character for budding.

STATE BOARD OF AGRICULTURE.

The State Board of Agriculture held a session at the State House on Wednesday, Thursday and Friday, the 3d, 4th and 5th of January. Every part of the State was represented, and the reports of the several committees were presented, discussed and referred. They show the improvements commenced, completed and anticipated. Among those completed are a building for the accommodation of the numerous small tools used by the boys, such as forks, rakes, hoes, shovels, &c.; a room for blacksmithing, one for depositing carts, sleds and large farming utensils, one devoted to corn-cribs, and for shelling of sufficient capacity to contain two thousand bushels, a carriage room, carpenter's shop, and a room for preserving and storing seeds. Another building has been completed sufficiently large to give one hundred swine ample yards, feeding and sleeping rooms; overhead is a large room for storing bedding or litter, and for keeping apples, pumpkins, small potatoes, or any of the early perishable articles which make up a considerable portion of the provender for swine in the autumnal months. This building is accommodated with capacious cisterns for receiving swill from the family of nearly six hundred at the Reform School, and for steaming vegetables or grain if thought desirable. In the front part of this building is a commodious slaughter-house, with a well and pump, and such conveniences as are necessary where slaughtering is required as often as once a week. The work is all done in a plain but substantial manner, and the building affords such facilities for swine-breeding and raising as have enabled the Board to find a profit of some $200 in the course of nine months in this department of the farm. New and substantial stone walls have been erected, drains made, and various expedients devised for the increase and preservation of manures.

The amount of produce sold from the farm during the year amounts to four thousand seven hundred and seven dollars and thirty-eight cents, and the amount of labor done on the farm for permanent improvements and for labor done for the Reform School amounts to one thousand eight hundred and thirty-six dollars.

The operations of the Board have been limited and impeded by the want of proper buildings to board the workmen, and suitable buildings must either be purchased or erected for this purpose. The farm now lies mostly on one side of the buildings, and the Board propose to ask the Legislature to purchase certain contiguous lands and buildings, all conveniently located, to obviate the present existing difficulties. If this request is granted, it will afford pasturage and mowing so as to double the number of cows now kept. During the last year, pastures have been hired, and large amounts of grass purchased and cured in order to increase the cows so as to furnish the supply of milk demanded at the School. But with this extraneous help this demand has not yet been supplied. More land and more buildings are needed before the business of the farm can be successfully prosecuted.

At the meeting of the Board of Agriculture on Thursday morning, Gov. Washburn was present, and presided until he was called away to attend to other duties at the Council Chamber. He said—

"Before leaving the Chair, as it was probably the last time he should have the honor to meet with them in that capacity, he would say a few words at parting. He should be doing injustice to them individually, as well as to the cause in which they were engaged, if he forbore to express to to them the high personal regard which his intercourse with them had so much strengthened, and the interest he felt in their efforts to promote the Agriculure of the Commonwealth.

It had been a source of profound satisfaction to him that he had been permitted to take a humble part with them in urging forward the work in which they were engaged. And he counted it by no means the least of the honors connected with the place which gave him the privilege of meeting and acting with them, that it had brought him into intimate relation with gentlemen who constituted that Board, and to know, by personal observation, their devotion to the purposes, for which the Board was created.

He was happy to believe that the interests of agriculture were assuming that importance in the public mind, which their extent and magnitude demanded. Its position among the other callings and pursuits of our citizens was becoming better understood and appreciated in the common wealth than it had hitherto been.

Not a little of this was owing to the character and influence of the members of this Board, and men like them, who had brought to it character, intelligence and practical experience. The need of some measure to elevate agriculture and promote its success in the commonwealth, had long been felt. How it could best be done has long been a desideratum in the policy of government. The plan which had now been adopted seemed to him, in the present state of science and of public sentiment, the best, or perhaps, the only one that could be devised.

It brought to the subject the combined knowledge and experience of gentlemen from different parts of the commonwealth, who, by full conference with each other, were able to test theories, and elicit what the public want to know, the truth of these as determined by accurate experiment and sound observation. It provided, too,

for a body of men whose interests were the same with those of every farmer in the commonwealth, and whose judgment and accuracy could not be impeached by suspicion of improper bias or self-interest. He could not but congratulate the people of the commonwealth in the promised results of this system. Nor could he, with less satisfaction, congratulate them that they had been made the honored instruments in carrying out so interesting and important an experiment. He doubted not they would continue to pursue the objects for which they had been appointed, and would find their reward in a proper appreciation of their services by a generous and confiding community.

In taking leave of his associates at that Board, over whose deliberations he had been permitted to preside for a brief period, he again assured them of his sentiments of high personal respect, of his best wishes for their success in every pursuit of life, and for their long-continued happiness and prosperity.

He thereupon left the chair, which was resumed by the senior member present, and took leave of the Board."

For the New England Farmer.

FALL PLOWING---PLASTER.

Mr. Brown:—There has been a number of articles in the *Farmer* recently upon "Fall Plowing;" my experience has led me to be in favor of plowing at that season. I used to be troubled by the worms eating my corn; but for the last three or four years, I have plowed the ground late in the fall, where I was going to plant corn the next year; and since this has been my practice, I have not been troubled at all by the worms. I think that by plowing late in the fall, the worms and eggs of insects are exposed to the frost and are thus destroyed.

PLASTER AS A FERTILIZER.

A great deal has been said in regard to the benefit derived from the use of plaster of Paris, and I suppose justly said, too, for I know that it is a great absorbent, and useful in many of its applications; but my experience the past season has led me to call in question the utility of this sovereign combination of lime with sulphuric acid as a fertilizer, as applied to crops. Last spring I planted a patch of potatoes, and between the hills I planted peas; both came up well and grew nicely; but about the time of the first hoeing, I put a large table-spoonful of plaster around each hill of potatoes and peas, in six rows, and left the rest of the piece without any plaster. The result was, where I put plaster on the peas, they were stone-dead within a week or two; but where I did not put plaster, I had a fine crop. When I dug the potatoes, those where the plaster was applied fell short of those where there was none, at the rate of one bushel in eight rods; the land was a sandy loam.

I had another piece of potatoes, on like ground, where I applied plaster to the whole of it in the hill; the potatoes on this piece were light, excepting two or three rows under the shade of a fence. I had still another piece of land, a moist, rich loam, on which I planted potatoes; to one-half I applied plaster in the hill. Where I put plaster, I got 21 lbs. of potatoes; where I did not, I got 23 lbs., or in that proportion.

It is a question with me whether the plaster that I used was good. I have no means of analyzing. I did not know before that crops were ever the poorer for the application of plaster. The plaster came from Vermont.

Yours, &c., E. P. Woods.

Newport, N. H., Dec. 20, 1854.

For the New England Farmer.

OFFICIAL VISITS TO FARMERS.

To the Hon. M. P. Wilder:—Dear Sir,—In view of your position, experience and influence, from connection with Agricultural Societies and with the State Board of Agriculture, you will excuse me for making further demands upon your attention by the following suggestions. It is not uncommon for men who have given their principal attention to *one branch of business*, for the purpose of money-making, especially if they are bright, thorough men, to be superior, able to exhibit plainly—to demonstrate, as matters of fact, the results of their experience—to give reliable instruction, directions and examples of their skill and success in that one branch. This *they are free to do*, it may be as philanthropists, to benefit others, but surely as men. It is human nature. Said a sailor, "you know we all love to talk about that which lies nearest our heart." He has done so to get more perfect knowledge of his darling theme, or to get credit for his superior skill and work. I have found just such men of concentrated genius and high standing in various occupations. I have one in my eye, who could tell you, and show the best constructed stables and piggeries; the process of making and saving the most and best manure; by confining his attention to stock and swine growing, what feed and management would give the largest return for the outlay of every dollar and dime, and 60 shoats growing finely, at a cost of one and a half cents each per day; his good breeding sows, from three to five years old; another lot that will average 350 lbs., at eight months old, at a cost of four and a half cents per pound; and 1200 loads of manure, with his method of making and applying it. This is one man, and his profits are large by pursuing one branch of business, well understood.

This article is written to express my conviction of the justness of his views, viz., that "the best interests of the State might be promoted by selecting an individual in each county to visit the farms reported to be good, and learn from the farmers their modes of cultivation, and present the facts ascertained through the press, under the appointment and pay of the State."

Some ten years since the writer was appointed, by the "Hampden County Agricultural Society," to prepare an article for their next anniversary on the subject of "*manures*," which he did, and also recommended to the society the employment of a discriminating man, for a year, to visit the best farmers, and collect facts deemed most im-

portant as improvements and principles in the various departments of agricultural science and practice, committing them to writing on the spot; and from these items to prepare and publish, in tract form, a plain, explicit statement and direction on each one; and to circulate these little manuals in all the towns, so that *each farmer*, by means of these and his lectures, may be reached, excited and instructed in a course of visits, to the great benefit of his family and community. This suggestion was made in view of the entire destitution of many families of any reading or lectures upon the subject of their vocation, and also of the lively interest that would be kindled up by a visit and paper, telling them what others are doing, and what they *may* do, that would be a subject of conversation and inquiry hardly to be expected without such an agency. That was proposed for immediate adoption, in view of the maxim,—

"Greatest good is soonest wrought;
Ling'ring labors come to nought."

If in this latitude, and with the increase of periodicals and lecturers, *something* is doing, still an anxious observer will sigh in view of the slow progress of *ten years*, and the languid pulsation of very many yet poor farmers and their boys, like old-fashioned nurseries, *never budded*.

These things must be looked at; let them be *taken in hand by the State*. Men may be found who can bring head and heart and hand to this work, with proper inducements, whose influence will tell on society as certainly and as strikingly as the operations producing that splendid array of productions from the mechanic's shop, the nurseries and the farms do on our State Fairs.

Yours truly, Benjamin Willard.

Lancaster, 1854.

For the New England Farmer.

CULTURE OF THE PEAR.

For more than twenty years has the "pear fever," as it is called, been raging in this part of New England, and many and solemn have been the predictions that "the thing would be run into the ground," and the market so far glutted by over-production, that pears would not pay for the cultivation. Nurseries have been established in almost every town—thousands of trees have been sold yearly at auction and at private sale—and yet, strange to say, the price of pears in the market is higher this year than it ever was before. A dollar a dozen for handsome dessert pears is an ordinary price. When it is borne in mind that the pear crop is less affected than any other fruit crop of this climate by the casualties of the seasons, the facts here stated are sufficient to show that there is no danger of over-production.

A widow lady who owns a small farm of fifty acres not fifty miles from Boston, has received more money the past season from the product of two pear trees, than from any one other product of her farm. When good fruit of this kind sells as high as $15, and even $20 per barrel, who can doubt its profitableness over any and all other agricultural or horticultural pursuits? The mistaken idea that it takes half a life-time to bring pear trees into full bearing has deterred many from engaging in their cultivation; while others have gone into the business hap-hazard, without knowledge, or experience, or perseverance, and pronounced it a humbug, because it was with them, as a matter of course, a failure. To those however, who have any taste for pomological pursuits. and have patience to learn something from their own observation and the experience of others, the pear culture promises a rich harvest. It takes some years, it is true, for pear trees or pear stocks to come into full bearing; in fact, the longer fruiting is protracted, the better is the evidence of the healthfulness of the tree, and of its ultimate productiveness. Some fruit-growers consider very early bearing as an evidence of disease in the tree; and it is often the case that the transplanting of a young tree will set it to fruiting for a year or two, when it will apparently recover its decimated roots, and take upon itself a vigorous growth for a number of years without bearing at all. Let no one discard such a tree. It is only preparing itself for a ten-fold better ultimate harvest.

There is an impression abroad that all the old varieties of pears are "running out" or becoming worthless. This is a mistake. It is true that the St. Michael or Doyenne, Crassanne, Chaumontelle, and other favorite old pears, have deteriorated; but this is believed to be the result of a too high cultivation, rather than any intrinsic change in the nature of the tree. Certain it is that the *Jargonelle* (the "Espargne" of Rosier, and the "Gross Quisse Madame" of most of the old French writers,) is the oldest pear extant, and is still not only a prolific bearer, but is the best of all the earlier dessert pears. It is believed to be identical with the *Pyrum Tarentinum* of Cato, and the *Numidium Græcum* of Pliny, and has come down to us through more than two thousand years,

"Unaltered by the frost of time,
Or changing circumstance of earth,"

in all its original delicacy and excellence. Some of our nurserymen, we are sorry to say, have substituted by mistake the Quisse Madame, a pear of English origin, for the Jargonelle—and we see quantities of the former sold under the latter name in the markets. The two very much resemble each other in shape, in the growth of the wood, and in the time of maturing the fruit, but the Quisse Madame is much inferior in size and quality. The true Jargonelle is almost invariably reddish next the sun.

There are other early or summer varieties worthy of cultivation, such as the Julienne, the Burlingame, the Bergamot, the Sucre Verte, the Dearborn Seedling, the Sabine d'Ete, the Belle of Brussells, Souvrain d'Ete, &c. There is also Petit Muscat, the fruit of which grows in clusters, and ripens in July. It takes about a dozen of these pears to make a mouthful, and they are often sold by the pint or quart at the fruit stands. It is not a very profitable variety for the market.

For an autumn pear, the first to be named is the Bartlett, or, as it is called in England, Williams Bon Chretin. This fruit is generally believed to have originated in Berkshire, England, and was extensively cultivated by Mr. Williams, near London, whose name it bears there. It was first cultivated by Enoch Bartlett, Esq., of Dor-

chester, which accounts for it synonyme here. Another account represents it as a pear of Flemish origin. In the various properties of vigorous growth, great productiveness, delicious flavor, and adaptedness to all soils, and almost all climates, no other pear can equal the Bartlett. It produces equally well in the north of Scotland and in the island of Malta.

The next best autumn pear, in all respects, according to the writer's experience, is the Flemish Beauty; and then come the Louise Bon de Jersey, Duchess d'Angouleme, Maria Louise, Seckle, Napoleon, Heathcot, Dix, Capiaumont, Beurre d'Amaulis, Beurre Bosc, Fondante d'Automne, Belle et Bonne, Beurre Spence, Cushing, Edgewood, Stevens's Genessee, Harvard, Moccas, Urbaniste, Wurtemburg, &c. All these are good varieties, and produce well on most soils. The Napoleon is apt to rot at the core, but is otherwise a superb pear and a prolific bearer.

Of winter pears, the best in all respects is the Beurre Diel. In some few cases it has proved a shy bearer, but it is usually prolific, and is remarkable for the healthy and vigorous growth of its wood. The fruit is large, very heavy, very juicy, sweet and delicious. The Easter Beurre somewhat resembles the Buerre Diel, and is also a most excellent variety. The Passe Colmar is a very delicious fruit, and the tree a great bearer. Then come the Beurre d'Aremberg, the Glout Morceau, Van Mons Leon le Clerc, Winter Nelis, Souverain d'Hiver, Buerre Rance, Ne Plus Meuris, Bezi Vaet, &c. The Vicar of Winkfield, (otherwise known as "Monsieur le Cure," or "Clion,") is quite extensively cultivated in this region. It is not by any means a first rate dessert fruit, but it is handsome, sells well, and the tree is very prolific. The fruit-grower can therefore hardly afford to discard it.

There may be other varieties than those here named, which the experience of fruit-growers has proved equally worthy of cultivation; but here is variety enough in all conscience, and all these the writer believes may be safely trusted by those desirous of engaging in the culture of the pear.

Why it is that our farmers will wear out a lifetime in accumulating broad but sterile acres for their children, when they might with much less toil leave them a far richer dowry in full-bearing orchards, is not the present object of the writer to discuss. He purposes, however, at his earliest convenience, to give the readers of the *New England Farmer* (with the leave of its editors,) his views, drawn mostly from his own observation and experience, in regard to the proper culture of the pear, and of fruit trees generally. If anything he can say shall have the effect to inspire a better appreciation of the culture of fruit, he will feel himself amply rewarded.

Somerville. E. C. P.

What a Man can Live upon.—The vegetarians will find an argument for their antipathy to flesh, in the result of some experiments made in the Glasgow prison, where it was found that ten persons gained four pounds of flesh each in two months, eating for breakfast eight ounces of oatmeal made into a porridge, with a pint of butter milk; for dinner, three pounds of boiled potatoes, with salt; for supper, five ounces of oatmeal porridge, with one-half pint of butter milk, which costs two pence three farthings per day. Ten others gained three and a half pounds of flesh, eating six pounds of boiled potatoes daily, taking nothing with them but salt. Ten others ate the same amount of porridge and buttermilk, without the potatoes, as the first ten, but for dinner had soup; they lost one and a quarter pounds of flesh each; and twenty others, who had less potatoes, but half a pound of meat for dinner, diminished in size likewise. From this, it would appear that potatoes were better diet than smaller quantities of animal food, at least for persons in confinement; the meat eaters, if they had been allowed ordinary exercise, which an individual usually takes when in freedom, might have exhibited a very different result. — *Philadelphia Ledger.*

DAIRIES.

FROM THE MIDDLESEX TRANSACTIONS.

It was a general remark, as well by the visitors as in the committee, that the exhibition of cattle this year was much inferior to that of the last, and of the several preceding years. No doubt this was owing to the effect of the severest drought ever remembered in the country, which in many towns cut off the common, and by far the best food of the cattle, reducing their yield of milk, and severely injuring their appearance. Ample and well watered pastures seem to be essential to the production of the best and largest quantity of milk and butter, and equally so to the health of the cow. Soiling, feeding out grains, &c., can seldom be resorted to with profit when the farmer has at his command sufficient pastures for his cows to range over and feed at will. It is to the above cause, no doubt, that the liberal premiums offered by the Massachusetts Society for promoting agriculture, failed to bring out the show of stock that our society confidently hoped to have seen at this exhibition. Let us hope that the effect of these premiums which are to be offered, until they are awarded, will another year be such as to satisfy the expectation of the public and as to induce the trustees of the Massachusetts Society to repeat them. We may mention in this connection that the same society have decided to extend premiums of similar amount to such other county societies throughout the Commonwealth as have not already received them, the next year; and the large sum of $1200 to be competed for under the auspices of the Worcester society, at Worcester, by all the counties in 1856.

There were five dairies of cows offered this year for premiums. One of these, Mr. Buckminster's fine herd of Devons, was deservedly admired by every observer, but could not be considered by your committee because the proprietor failed to make any statement of its history or products as required by the regulations of the society. Four other gentlemen also exhibited cows, but as they, with one exception, also failed to comply with the regulations prescribed by the society, the committee could not consider them in reference to premiums, however well they might be thought to merit them. Only one of these dairies produced butter, that of Mr. A. G. Sheldon, of Wilmington. His carefully prepared statement will be read with interest and profit. But in the opinion of the committee, the produce was not sufficiently

large to entitle him to a premium. It will be seen that for his butter, which is certified by competent judges to have been of the finest quality, he received only thirty cents per pound, although prepared in the best manner, and laboriously stamped. This should not be so. Many consumers in Boston pay from forty to fifty cents a pound, besides in some instances paying expenses by express from Philadelphia for butter, no better, to say the least, than his. If he, or others who feel a just pride in producing the best butter, would also take a little pains in marketing it, they would be more justly paid for their exertions. His cows are all described as natives. We suggest to him to add one Alderney to his herd. Her cream will give color and character to his butter, and enable him to advance his prices from one-third to a half in a market where it would be appreciated, and where there is a demand far exceeding the present supply. Mr. Viles, of Waltham, exhibited a dairy of eight cows, partly natives and partly grades of Ayrshire. His account of their produce, which is extraordinary, is submitted. The dairies of Mr. John B. Moore, and of Mr. George M. Barrett, of Concord, were of a high order, showing well selected stock and great production of milk.

And here we may be allowed to express some doubts whether the statements of extraordinary produce of cows, as given by amateurs in the public prints, and which sometimes find their way into agricultural reports, have not done something to discourage the efforts they are intended to stimulate. In a late number of the journal of the Royal Agricultural Society of England, there is a communication from Col. Le Couteur, of Jersey, giving the produce of his celebrated prize cow "Beauty," and of several others, of the best specimens of the Jersey or Alderney cows. He says that "Beauty," in her best milk, yielded eleven pounds thirteen ounces of butter a week from one hundred and thirty-three quarts of milk (nineteen quarts a day,) being a pound to about eleven quarts. Some of the other cows gave twenty-six quarts of milk a day for a short period, and fourteen pounds of butter a week, or a pound to thirteen quarts of milk.

This contrasts strangely with the frequent statements made of the products of the same breed of animals here. From four to six quarts of milk, it is often said, give a pound of butter. And these statements come from parties whose accuracy and truthfulness no one can for a moment doubt. But what are the circumstances? Is this extraordinary amount of butter made soon after the dropping of the calf and on good pasturage only? Or is it made from farrow cows, or the strippings or morning messes? and are the cows highly fed with stimulating food? No doubt these statements, made sometimes without all the details necessary to make them well understood, have had a serious effect on the competition for our prizes. Would it not be well to make it a condition that cows offered for premium shall in the trial months, say from May to September, have no other feed than pasturage and green fodder? Without such a general rule, it is to be feared that there can be but little fair competition, and that many people will decline it altogether for whose advantage it is equally proposed. In this department, as well as others, careful readers cannot fail to observe that amateur, and not practical farmers, generally bear off the prizes, to the disappointment and often permanent disgust of less favored competitors. These gentlemen amateurs would add greatly to the obligations they have already laid the community under, if they would enter their fine stock for exhibition only, and leave the prizes to parties to whom they are a pecuniary object as well as a proper ambition.

The committee have observed with great pleasure the successful efforts of many gentlemen in the county to introduce the best foreign stock to their neighbors and the public. Already the effect is obvious to the observer when passing over the county in any direction. Fine cattle of the Jersey, Ayrshire, Devon and Durham breeds are often seen mingled with the best native stock. Much of this improvement is also to be attributed to the "Massachusetts Society for Promoting Agriculture," which has with well considered liberality placed bulls of various breeds in different parts of the Commonwealth, for public use.

For the Committee,

James Brown, *Chairman.*

HONOR TO THE TOILING HAND.

All honor to the toiling hand,
Or in the field or mine;
Or by the harnessed fire or stream,
Or on the heaving brine;
Whatever loom, or bark, or plow,
Hath wrought to bless our land,
Or given around, above, below,
We owe the toiling hand,
Then honor—honor to the toiling hand!

It battles with the elements,
It breaks the stubborn sword;
It rings the forge—the shuttle throws—
And shapes the social board.
It conquers clime—it stems the wave—
And bears from every strand
The sweetest, best of all we have,
Gifts of the toiling hand,
Then honor—honor to the toiling hand!

For the New England Farmer.

THE CONCORD GRAPE.

This grape, which has created a great sensation among the horticulturists, but which I have never tasted, (and perhaps may not for years,) must be a good fruit; but whether so desirable as claimed, years only can decide. Should all the horticultural papers in New England extol it, its reputation would not be decided. From ten to fifteen years' cultivation can only put the matter at rest. Though the Isabella may have faults, it cannot be easily supplanted or rivalled among the mass of fruit-growers. How long would it take to establish the fact that we had an apple that would equal the Rhode Island Greening, the Baldwin or the Russet, or a pear that would rival the Bartlett?

The Isabella grape is handsome and good, but there are many locations in which it will not ripen. A neighbor of mine, whose soil is elevated and who has a vine sheltered on the south side of his house, has seen his grapes fail only once in the past six years—the frost then blighting them when they were of a light cinnamon color. A western sun upon this vine, I think,

would make it more certain, though not bad as it is. But there are many locations, where a person happens to have a garden, in which this grape would not ripen more than half the seasons, and some where it would never fully mature.

If Mr. Bull has introduced a grape that is as good and as handsome as the Isabella, and surer to ripen, he merits the thanks of lovers of this fruit, and should have a good profit on his vines. At present I have not one of them; but to see one growing in a place already prepared in my garden, is a "consummation devoutly to be wished." D. W. L.

W. Medford.

WHAT SHALL WE EAT?

With one of the hardest winters for the poor that has stared them in the face for many years, and now with this cold month of December upon them in all its rigor, it behooves them to look about for something to eat less costly than roast beef and plum puddings; for the two dollars a day, that some of them seem to think would endure forever, has been cut off suddenly. It is estimated that fifty thousand persons have been thrown out of employment, since the cold weather commenced, by that cause alone. An equal number have been thrown out by failures and general stagnation of business. It is to be a winter of suffering to those who are dependers upon the labor of their hands for daily bread for themselves and families. Whatever will tend, not to cheapen food, for that we cannot hope for, but to show them what to eat, less expensive than their accustomed diet, should be at once adopted. For this purpose we offer a few suggestions:

Fresh meat of all kinds, at the prices at which butchers retail it, is not economical food. Meats will average over a shilling a pound. Salted meats are cheaper than fresh. In economizing food, meat should be fried or boiled. If you would get the most substance out of fresh meat, make it into soup, or stew, or pot-pie. In making soup, soak your meat some hours in cold water, and boil it in the same. Thicken with beans, peas, rice, barley, hominy, or broken bread. The best meat is the most economical for soup. Do not buy bones.

If you boil meat to eat, never put it in cold water. Let it be boiling when you put the meat in the pot. Do not buy fresh meat a pound or two at a time. Buy a quarter or a half a sheep. You get it at half price. Beef or pork by the quarter is a quarter cheaper.

Do not buy your bread ready baked. It is sixpence a pound. Dry flour is the same. Home-made bread is far more nutritious. Make use of corn meal, oat meal, Graham flour, hominy, and cracked wheat for bread, in preference to fine wheat flour, both for health and economy. Here are the relative retail prices per pound of these articles: Wheat flour, 6c; Graham flour, 6c; cracked wheat, 6c; corn meal, 2½c; hominy, 3c; oat meal, 4½c. The latter is the most nutritious breadstuff known. Look at the Scotch with their oat meal porridge—as robust a set of men as ever lived.

Hominy we have before given our opinion upon. It is an article that no family, desirous of practicing economy, can do without. It is a very cheap, healthy, nutritious food. It costs only half the price per pound of flour, and contains no moisture, while the best of flour holds from twelve to sixteen pounds of water in a barrel. Cracked wheat is excellent for sedentary persons. That and Graham flour should be used in preference, at the same price per pound, to white flour, because more healthy and more nutritious. One hundred pounds of Graham flour is worth twice as much in a family as one hundred and thirty-three pounds of superfine white flour. Corn meal costs less than half the price of flour. It is worth twice as much. It is not so economical in summer, because it makes so much fire to cook it. The first great error in corn-meal is in grinding it too much, and next in not cooking it enough. Corn-meal mush should boil two hours; it is better if boiled four, and not fit to cut if boiled less than one hour. Buckwheat flour should never be purchased by a family who are obliged to economize food. It is dear at any price. It must be floated in dear butter to be eaten, and then it is not healthy. Oat-meat is as good in cakes as buckwheat, and far more nutritious. But it is more nutritious, and is particularly healthy for children, in the form of porridge.

The cheapest food is white beans. They are worth from $1,50 to $2 a bushel, and retail for 8 cents a quart. Prof. Liebig has stated that pork and beans form a compound of substances peculiarly adapted to furnish all that is necessary to support life and give bone, muscle and fat, in proper proportions, to a man. This food will enable one to perform more labor, at less cost, than any other substance. A quart of beans, 8 cents, half a pound of pork, 6 cents, will feed a large family for a day, with good strengthening food. And who that can raise a reminiscence of old times in New England, but will remember that glorious old-fashioned dish called "bean porridge?" We should call it bean soup now. Four quarts of beans and two pounds of corned beef would give a good meal to fifty men—one cent a meal.

Potatoes should be utterly abandoned by the poor this winter. They cannot afford to eat them. Potatoes are selling at four dollars a barrel. That is $1,87 a bushel. At retail the poor pay $2,50 a bushel, or about five cents a pound, twice the price of corn meal; five-sixths as much as fine flour; one-fifth more a bushel than beans, while one bushel of the latter are worth for food as much as a cart load of potatoes. All other vegetables are still more uneconomical than potatoes. Carrots are the cheapest of all roots. But they are but little used as human food, though very nutritious. They are partially used in soup. They are good simple boiled and eaten with a little butter, or meat gravy. They should always form an ingredient of soup. They are sold by the quantity at 50 cents a bushel. Turnips are dear at any price. There is more nutriment in a quart of carrots than in a bushel of turnips. They are 82 per cent. water. Cabbage is nutritious, but very expensive. Buy very little of it if your money is short. Dried sweet corn is an article that all persons are fond of. It sells for $4 to $5 a bushel, which weighs 42 lbs., and would retail at about 10c a pound. We don't know about the economy of eating it, as compared with other breadstuffs, but as compared with coarse vegetables, it is immeasurably cheaper. A pound of sweet corn

cooked to be eaten with meat, is worth more than three pounds of extra meat. It is also very excellent and nutritious mixed in the bean soup.

Another very excellent, nutritious, economical article of food is dried peas. They are generally a little more costly than beans, but some think they will go further. At any rate they are good for a change. It would be good for a change for those who are put to their wit's end to know how to get food enough to feed their families, if anything that we have said shall put them in a way of changing some of their old habits, so as to buy such articles as will satisfy hunger, while giving them health and strength, for less than half the money they are now expending, though living only half comfortably.—*N. Y. Tribune.*

POULTRY CHEAPER THAN PORK.

Mr. Editor:—Allow me to say a few words in your paper in behalf of that much neglected class of stock that are usually found upon a farmer's premises without "a location," if they have a name. They are not thought worth enough to have quarters of their own, and so shift for themselves upon the first fence, tree, or out-house that affords rest to their feet. Even in these days of hen-fever, and of feathered stock imported from the farthest India and beyond, there are thousands of farmers who have no shelter for their fowls better than an apple-tree or open shed. "The merciful man is merciful to his beast;" and it would be a good lesson for the improvident owner of these abused bipeds, if he could exchange places with them for one December night, when the thermometer stands below zero. The sty must have a place and the grunters be made comfortable, with a water-proof roof and a warm bed; for pork cannot be made to good advantage without proper attention. Pork-growing is a main reliance to pay the rent of their hired hands. Poultry is more plague than profit, and the less care bestowed upon them the better. We intercede for the "biddies," and beg for them a little of the attention that is lavished upon their more gross and less attractive neighbors. Give them a fair trial, and they will pay any farmer for his care much better than pigs, and will supply his table with greater luxuries, and at a cheaper rate. And to establish this position, we will tell you a tale quite as literally as some others founded on fact.

In the year 1850, my poultry yard cost me—

In stock	$39 96
In food for fowls	39 81
Total	$79 77
It produced in eggs	34 92
" in manure	5 00
In stock at close of year	50 00
Total	$89 92
Deduct expense	79 77
Profit	$10 15

It produced about this time 91 chickens and fowls, weighing about 300 lbs. In other words, the yard paid three cents a pound for all the poultry used in the family. When did a porker ever pay you for the privilege of eating him? Even Charles Lamb's roast pig will have to knock under to the biddies.

In 1851 my yard cost me—

In stock	$54 50
In food	65 56
Total	$120 06
It produced 268 dozen eggs	48 76
" 5 loads manure	5 00
Stock on hand at the close	113 00
Total	$166 76
Deduct	120 06
Profit	$46 79

Besides this profit, it produced 61 fowls, weighing about 200 lbs. In other words, it gave 23 cents per pound for the privilege of being eaten. Was roast pig ever so gracious as this? We have tried pork-growing for the same two years, and dealt as liberally by the sty as by the poultry yard, but with a very different result. The account stands thus:—

Bought a pig May 13, 1850	$4 80
Food	15 02
Total	$19 82
Deduct 8 loads of manure	8 00
	$11 82

He produced 206 lbs. of pork. Divide the cost by this, and it gives a little over five cents per pound, as the cost of production.

He must be a very skilful farmer who can produce pork for four or five cents a pound. Most of the pork made in New England costs six or seven cents, the full market price; so that there is no advantage in producing it, except as it makes a valuable manure upon the farm. The farmer who can make pork for nothing, or what is better, can make it pay him thrice the market value for being eaten, is a man yet to be heard from. The best husbandry will probably never be able to accomplish this with any breed of pigs.

But the fowls will pay their own way, with proper care, and will give you a certain amount of poultry, without other cost than your own trouble in rearing them. Each hen, well cared for, will yield a clear profit of at least $1, or, in other words, will give you eight pounds of poultry for nothing.

We say, then, especially to the boys, take care of the "biddies." Let them have a warm place for a roost, a dry cellar, if possible, in winter, a variety of grain and a little animal food, clean water to drink, and lime in some shape for egg-shells. Take care of the fowls, and they will take care of you.—*Cor. Plough, Loom and Anvil.*

Drew's Rural Intelligencer.—A new paper published at Augusta, Maine, by Wm. A. Drew, and filled with everything good in the way of agriculture, horticulture and the news of the day. Brother Drew holds a strong pen, is acquainted in the field in which he is to trot, and will not come out second best.

The Practical Farmer. Vincennes, Indiana, S. Burnett, Editor. Harvey, Mason, & Co., Publishers.—It gives evidence of plenty of mind, but wants more ink. Our copy was all "*friars.*" We cordially grasp your extended hand, brother Practical.

"HOME SICK FOR THE COUNTRY."

Since the Almighty placed our first parents in the garden of Eden, a passion and love for the country has been natural to the heart of man. A correspondent of the *Knickerbocker* gives vent to this feeling as follows:

"For my part, I am weary of city life, and sigh for the Great Mother. I see the waving of trees, but they are rooted in a church-yard, or grow between flag-stones. I hear the notes of singing birds, but they are pewter canaries at sixpence apiece. I am tired of water running up and down leaden pipes, and through cocks and filters; I want to see it rise like a Naiad, dripping from the well. I am haunted of 'stoops,' and have a sort of green sickness for porches clambered over with greenery. I wish for other flowers than artificial, and desire to look upon rain not as an inconvenience, but as a blessing to the crops.

"I'd kind o' like to have a cot
Fixed on some sunny slope; a spot
Five acres, more or less,
With maples, cedars, cherry trees,
And poplars whitening in the breeze.
"'Twould suit my taste, I guess,
To have the porch with vines o'erhung,
With bells of pendant woodbine swung;
In every bell a bee;
And round my lattice window spread
A clump of roses, white and red.
"To solace mine and me,
I kind o' think I should desire
To hear around the lawns, a choir
Of wood-birds singing sweet;
And in a dell I'd have a brook,
Where I might sit and read my book.
"Such should be my retreat,
Far from the city's crowds and noise;
There would I rear the girls and boys,
(I have some two or three,)
And if kind Heaven should bless my store,
With five or six or seven more,
How happy I should be!"

PULVERISED PEAT.

A most important discovery has been made by an eminent agricultural professor of chemistry, that finely pulverised peat will effectually deodorise the most offensive putrid matter, and destroy the most fœtid odors; in fact, that it possesses the wonderful disinfecting properties of charcoal, that by mixing it with common night-soil in about equal proportions, one of the most valuable manures is made, and proved by experiments not inferior in results to the best South American guano. It may be made at all seasons and stored away for use, or the land dressed with it immediately. This valuable manure may be used as a top-dressing, or drilled, or dropped in with the seed, at the rate of from 700 to 800 pounds per acre, and it may be applied with benefit to every kind of crop. It may be sown with the seeds of all green crops, and it will push them into early and rapid growth. It will also be found highly serviceable in all garden crops, shrubs, and flower beds. If the finely pulverised peat be strewn over the floors of stables, piggeries or cow houses, with a very light covering of straw over it, it will absorb and retain all moisture, disinfect the building of every noxious gas so injurious to cattle, and by its mixture with the excreta from the animals, for immediate use. Sheep folded upon it at night would produce wonderful and most important results to farmers in the vast production of valuable manure. Finely pulverised peat also supplies the ready means of removing all nuisances, thereby promoting the public health—and many years cannot elapse before this important discovery will be adapted to convert all the noxious matter of the country into solid portable manure, without any offensive odor, instead of being carried into streams and rivers, vitiating the water we drink by polluting it with animal and vegetable matter again, by evaporation, impregnating the very atmosphere we breathe and producing an actual loss of the most valuable materials to the agriculture of the United Kingdom, which, if taken in the aggregate from all available resources, can scarcely be estimated at less than 10,000,000*l*, sterling, annually. Further details cannot now be entered upon, but it may be remarked:—let every cottage be possessed of this cheap and valuable article, finely pulverised peat, and his garden may vie with the best in produce and verdure; he may thoroughly manure his own ground and have a large surplus to dispose of to his more wealthy neighbor. Let every small householder see to it, and produce a portable, inodorous, and valuable manure, saleable in every locality. From the palace to the hovel the same means are available, but where water closets, cess-pools, sewers, &c., have to be contended with, time will be required to effect the necessary changes; yet, in the nineteenth century, surely, our enlightened age, with these startling facts before us, will never long permit the foundation of such vast wealth to the country to be floating in the ocean. These remarks are only the outline of this important discovery.—*Gardeners' Chronicle.*

VOYAGE AROUND A PUDDING.

Dr. Bushwhacker folded his napkin, drew it through the silver ring, laid it on the table, folded his arms, and leaned back in his chair, by which we knew there was something at work in his knowledge-box. "My dear madam," said he, with an aboriginal shake of the head, "there are a great many things to be said about that pudding."

Now, such a remark at a season of the year when eggs are five for a shilling, and not always fresh at that, is enough to discomfort anybody. The doctor perceived it at once, and instantly added, "In a *geographical* point of view, there are many things to be said about that pudding. My dear madan," he continued, "take tapioca itself; what is it, and where does it come from?"

Our eldest boy, just emerging from chickenhood, answered, "85 Chambers Street, two doors below the Irving House."

"True, my dear friend," responded the doctor, with a friendly pat on the head; "true, but that is not what I mean. Where," he repeated, with a questioning look through his spectacles, and a Bushwhackian nod, "does tapioca come from?"

"Rio de Janeiro and Para!"

"Yes, sir; from Rio de Janeiro in the southern, and Para in the northern part of the Brazils, do we get our tapioca; from the roots of a plant called the Mandioca, botanically the *Jatropha Manihot*, or, as they say, the Cassava. The roots are long and round, like a sweet potato; generally a foot or more in length. Every joint of the plant will produce its roots like the cuttings of a grape-vine. The tubers are dug up from the ground, peeled, scraped, or grated, then put in long sacks of flexible ratan—

sacks, six feet long or more; and at the bottom of the sack they suspend a large stone, by which the flexible sides are contracted, and then out pours the cassava-juice in a pan placed below to receive it. This juice is poisonous, sir, highly poisonous, and very volatile. Then, my dear madam, it is incarcerated in water, and the residuum, after the volatile part, the poison, is evaporated, is the innocuous farina, which looks like small crumbs of bread, and which we call tapioca. The best kind of tapioca comes from Rio, which is, I believe, about five thousand five hundred miles from New York; so we must put down that as a little more than one-fifth of our voyage around the pudding."

This made our eldest open his eyes.

"Eggs and milk," continued Dr. Bushwhacker, "are home productions; but sugar, refined sugar, is made partly of the moist and sweet yellow sugar of Louisiana, partly of the hard and dry sugar of the West Indies. I will not go into the process of refining sugar now, but I may observe here, that the sugar we get from Louisiana, if refined and made into a loaf, would be quite soft, with large loose crystals; while the Havana sugar, subjected to the same treatment, would make a white cone almost as compact and hard as granite. But we have made a trip to the Antilles for our sugar, and so you may add fifteen hundred miles more for the *saccharum*."

"That is equal to nearly one-third of the circumference of the pudding we live upon, doctor."

"Vanilla," continued the doctor, "with which this pudding is so delightfully flavored, is the bean of a vine that grows wild in the multitudinous forests of Venezuela, New Grenada, Guiana, and, in fact, throughout South America. The long pod, which looks like the scabbard of a sword, suggested the name to the Spaniards; *vayna* meaning scabbard, from which comes the diminutive vanilla, or little scabbard—appropriate enough, as every one will allow. These beans, which are worth here from six to twenty dollars a pound, could be as easily cultivated as hops in that climate; but the indolence of the people is so great, that not one Venezuelian has been found with sufficient enterprise to set out one acre of vanilla, which would yield him a small fortune every year. No, sir. The poor *peons*, or peasants, raise their garabanzas for daily use, but beyond that they never look. They plant their crops in the footsteps of their ancestors, and, if it had not been for their ancestors, they would probably have browsed on the wild grass of the llanos or plains. Ah! there are a great many such bobs hanging at the tail of some ancestral kite, even in this great city, my dear, learned friend."

"True, doctor, you are right, there."

"Well, sir, the vanilla is gathered from the wild vines in the woods. Off goes the hidalgo, proud of his noble ancestry, and toils home under a back-load of the refuse beans from the trees, after the red monkey has had his pick of the best. A few reals pay him for the day's work, and then, hey for the cock-pit! There, Signor Olfogie meets the Marquis de Shinplaster, or the Padre Corcorochi, and of course gets whistled out of his earnings with the first click of the gaffs. Then back he goes to his miserable hammock, and so ends his year's labor. That, sir, is the history of the flavoring, and you will have to allow a stretch across the Caribbean, say twenty-five hundred miles, for the vanilla."

"We are getting pretty well round, doctor."

"Then we have sauce here, wine-sauce—Teneriffe, I should say, by the flavor.

> '——from beneath the cliff
> Of sunny-sided Teneriffe,
> And ripened in the blink
> Of India's sun.'

We must take four thousand miles at least for the wine, my learned friend, and say nothing of the rest of the sauce."

"Except the nutmeg, doctor."

"Thank you, my dear young friend; thank you. The nutmeg! To the Spice Islands in the Indian Ocean we are indebted for our nutmegs. Our old original Knickerbockers, the web-footed Dutchmen, have the monopoly of this trade. Every nutmeg has paid toll at the Hague before it yields its aroma to our graters. The Spice Islands! The almost fabulous Moluccas, where neither corn nor rice will grow; where the only quadrupeds they have are the odorous goats that breathe the fragrant air, and the musky crockodiles that bathe in the high-seasoned waters. The Moluccas,

> '——the isles
> Of Ternate and Tidore, whence merchants bring
> Their spicy drugs.'

There, sir! Milton, sir. From Ternate and Tidore, and the rest of that mavellous cluster of islands, we get our nutmegs, our mace, and our cloves. Add twelve thousand miles at least to the circumference of the pudding for the nutmeg."

"This is getting to be a pretty large pudding, doctor."

"Yes, sir. We have travelled already twenty-five thousand five hundred miles around it, and now let us re-circumnavigate and come baek by the way of Mexico, so that we can get a silver spoon, and penetrate into the interior."—*The Wine Press.*

CEMENTED CELLARS.

Frequent inquiries are made on this subject. Cellars plastered at the sides and on the bottom with hydraulic cement will keep out the water without a drain, and will exclude rats, provided the work has been done in the best manner. Imperfectly executed, the water will leak in: and if the coat is too thin or too soft, rats will excavate beneath it, and then crack it off by piecemeal. It is unnecessary to inform our readers that the very best material is to be used; but some are not enough aware of the importance of giving it sufficient thickness. On dry and hard gravel, it may do well to apply the mortar at once to the excavated face of earth; but usually it is much better to cover the cellar bottom with paving stones, and where rather inclined to dampness, with two or three successive layers, the last of which may be quite small, or even coarse gravel will do. The mortar, made rather thin, is then spread smoothly over. In a few months the whole will assume a flinty hardness, through which no rat, with all the cunning of a politician, can ever make his way. It will be as dry as a floor, and fruit, vegetables, and other

articles, may be placed directly upon it without fear of dampness. It will not very soon wear out nor decay.—*Gennesee Farmer.*

MEZQUITE GUM.

The recent important discovery of a substitute for gum arabic, made known through a letter of Dr. Geo. G. Shumard to Thos. S. Drew, Esq., Indian Agent at Fort Smith, Arkansas, by him transmitted to the Bureau at Washington, D. C., and since published in most of the newspapers through the Union, is receiving much attention from naturalists and chemists. We have obtained from a gentleman who has investigated the subject, some facts which may be of interest to our readers.

Kunth notices a *Prosopis Dulcis* which resembles in appearance the tree spoken of by Dr. S., and remarks that it "yields a gum, Mezquitina, which is used instead of gum arabic," and many have erroneously supposed the two to be identical. The botanical name of the commonly known Mezquite tree, is given by Prof. Simeon T. Baird, of the Smithsonian Institute, as *Algarabia Glandulosae.* Dr. Shumard states that it luxuriates only in dry and elevated regions, but all other accounts, including that in the report of Captain Marcy, state that its home is in the "river bottoms," and its presence is generally considered as evidence of a rich soil. Capt. M. states that it is seen standing at such intervals as to present much the appearance of an immense peach orchard. They are from five to ten inches in diameter, and their stocks about ten feet in length. It is found on the river Gila, and plentifully on the Colorado. The banks of the Rio Grande produce some, as indeed do most of the rivers of the northern part of Texas. It is said to exist in forests of miles in extent, in Northern California. Like many of the plants of that latitude, its fruit is seen in blossom and in maturity at the same period. It is first recognized by the Pacific-bound emigrant in a stinted shrub, but as he approaches his destination, is seen only in a tree of twenty or thirty feet in height.

Our informant says that the gum is not the only valuable acquisition brought to light; it seems that mules devour with avidity the fruit, which is contained in a pod of a twisted appearance, being a berry of the size of a bean, each covered with a mealy pulp. Lieut. A. W. Whipple. of U. S. Corps Topographical Engineers, observing its peculiar effect upon them, was induced to examine it, and found that each berry possessed an intense stringent property. It is now thought, owing to the scarcity and high price of nutgalls, that tannin may be got from it with profit. Catechu, an astringent gum long used in medicine and the arts, we believe, is extracted from the wood of one of the *Mimosas*, and from present evidence we think will be obtained from the Mezquite. The Indians and Mexicans are in the habit of boiling its chips in water, and with the decoction dyeing articles of apparel, &c.

The tree certainly belongs to the class *Mimosa*, as does the acacia tree from which gum arabic is obtained, and from the similar properties, not only of the gum but the wood and bark, we may practically regard the two as alike. The gum may be procured during the month of August in large quantities, and brought to market with trivial expenses, bidding fair not only to lessen our importations of gum arabic, but in a few years to enable us to export with advantage. The only specimens of Mezquite gum which are known to be in the country were collected by the government exploring party under Capt. R. B. Marcy, 5th Infantry, U. S. A., a member of which was Dr. Shumard, who claims the discovery. We have seen the specimen at the store of Orlando Tompkins, corner of Winter street, (who has in his possession copies of the official correspondence in regard to it.) The Mezquite gum so closely resembles gum arabic in taste, appearance, &c., that from these proofs of identity alone we should at once have pronounced it a valuable product of our teeming country. It is expected that the government party under Capt. Pope, who have just left St. Louis on a journey over the plains mail route, for the purpose of sinking a line of artesian wells, will bring home ample specimens from the two or three varieties of the tree which are known to exist in that region.—*Boston Journal.*

THE VALUE OF ROOT CROPS.

The reader will be interested and benefited by perusing the article with the above title, from the *Plough, Loom, and Anvil.* The articles we copy from this journal are well considered and carefully prepared, and may be relied on to be as accurate as they can be without the expense of systematic tests and experiments.

It is reported as a remark of Mr. Webster, that if the turnip crop of England were to fail for two years in succession, that country would be ruined. This, of course, is a figurative speech, but there is much truth in it. A chemical analysis of turnips, however, would lead us to draw inferences the reverse of this. A root or fruit of which water forms 90 to 95 parts in every 100, can scarcely be thought very nutritive; and if the doctrine so very current, and which we have urged, that food containing nitrogen can alone be made useful to produce muscle, is true, then turnips cannot rank very high among such kinds of food. But we are beginning to inquire, at least, whether the great quantities of nitrogen in the atmosphere were not made for some other reason than because the Great Architect of all made oxygen rather too strong for common purposes. While so much oxygen is consumed by all forms of life, what service does the nitrogen perform? "It feeds plants." True, and *may it not* also feed animals? If not, why not? We do not attach so much force to the logic used on this subject as we have done, and facts and experiments certainly compel us to no such result. Potatoes yield but very little nitrogen, about 1½ parts in 100. Whence, then, comes the constant supply of muscle for the poor Irishmen in their native hovels? A very large proportion of the food of thousands of them, and almost the whole of many, consists of the potato only. Do they grow thin and weak? Neither. The carbon of the potato forbids the former, but what furnishes the muscle and imparts strength? Either we eat a wonderful excess of this muscle-forming food, or there is some mistake in our logic on these matters. But [illegible] again, at the Esquimaux

Whence come the muscle of that race of oil-feeders? Who labors harder than the ox, who feeds, often exclusively, on grass? The horses of hundreds of farmers, and especially those of twenty or thirty years ago, were kept without any allowance of grains. Whence comes the daily supply of nitrogen in the milk of the cow? She is fed, in many districts, with the same kind of feed.

Do you reply that all these substances contain nitrogen? We admit it. But we also claim that more nitrogen is voided in the excrements of these animals than is furnished in these kinds of feed. By Leibig's analysis, 100 parts of dry hay give 1.5 nitrogen, while by Bousingault, dried cow-dung gives 2.3 nitrogen. But this is aside from our main object. We recur to the subject of roots.

Turnips are found to be of great benefit to cattle, and why? We are inclined to explain it on the principle that concentrated nutriment is not so wholesome as that which is more diluted. The more diluted our food, provided we do not overtask the energies of the intestinal canal, in the conveyance of it to its destination, the better for the health of the animal. May not this be the rule? In such cases, the absorbents have more time and a better opportunity to possess themselves of what they need, without suffering anything to escape them. We do not assert this. We only suggest where no one appears ready to establish anything. The fact is universally admitted, that concentrated nutriment does not, of itself, form healthy food as an exclusive diet.

Again, the *ingredients* of turnips, etc., may be very favorably proportioned and combined to produce a physical effect peculiarly favorable upon the membranes with which they come in contact, and thus tend to secure a healthy condition in them. Is there any more satisfactory explanation of *the how* so vapid an article as a turnip is proved to be, should be so efficient?

But all roots usually cultivated, and all fruits resembling them, are peculiarly desirable as a feed for cattle. Beets, carrots, pumpkins, etc., have proved of great value for such purposes. Indeed, we can hardly doubt that the green stalks of corn, when fed to animals, pay better than the grain. Scores have given the result of their experiments, and among them all there is a marked agreement. The exceptions are few, if any. And it is obvious that in the green stalk the elements are in a condition more resembling roots, than is the grain, which is a more concentrated form of feed.

The following, according to Boussingault, are the constituent elements of sundry crops:

	Carbon.	Oxygen.	Hydrogen.	Nitrogen.	Inorganic matter.
Dry Turnip	429	423	55	17	76
Dry Beet	428	434	58	17	63
Clover	474	378	80	21	77
Oats, (the grain)	503	372	63	22	40
Wheat, "	461	434	58	23	24
Rye, "	463	442	54	17	24
Potato, dry	440	447	58	15	40

In these results there is a very great uniformity. But there is another matter to be taken into account. In the composition of 1000 parts of

Wheat, (the grain	117 are water.
Barley	150 "
Oats	100 "
Rye	100 "
Maize	130 "
Rice	140 "
Turnips	800 "
Red Mangel-Wurzel,	901 "
White Sugar-Beet	869 "
Parsnip	793 "

In the proportion of water there is a marked difference between roots and grains. How important this may be, what differences result from the combination of water in the root and water taken from the brook, we are unable to state. But it is not natural to suppose that the solid parts of the root, being to a greater or less degree in a state of solution or semi-solution, the food is in a better condition to be acted upon by the fluids of the stomach, and with more facility converted into chyle? And does not this tend to show the propriety of soaking grains, so far as it may be done conveniently, before feeding them?

Of the fact that soaking grains, and especially corn, for horses before feeding them, improves them, our own experience convinced us years ago. Whoever adopts this course will find fewer grains among the excrements of the stable, unchanged, than when the corn is fed in a dry state.

As to the comparative value of crops of grains and of roots, we offer the following as a fair approximation. Precision is, of course, impossible, where the conditions are so variable. The value of land, of labor, of manure and of crops, is too various for the predication of anything very definite. Various reports in the Hampden County (Mass.) Agricultural Society, bring the following as the cost of certain crops per bushel:

Wheat	58 5-6 cents.
Corn	54 2-10 "
Rye	48 "
Carrots	13 2-10 "
Turnips	4 2-3 "

Making an estimate from various other reports of the Massachusetts Societies, (though at a lower rate than the premium crops,) and from other sources in our possession, we come to the following results, the quantity of land taken being one acre:

Carrots.—Produce, 600 to 700 bushels of 50 lbs. each, worth ½ a cent a pound, or $150 to $175. Cost of cultivation, say $75. Profits, say $75 to $100 per acre.

Sugar Beets.—Produce, 320 bushels of 50 lbs. each, at 18 cents a bushel, its value is $57.60. Cost of crop, say $35. Profits, $22.60.

Ruta-Bagas.—Produce, 800 bushels of 50 lbs. each, at 25 cents a bushel, is $200. Cost, $100. Profit, say $100.

Turnips, (common.)—Produce, 600 bushels, at 12½ cents a bushel, is $75. Cost of crop, $40. Profits, $35.

Wheat.—Assuming 30 bushels as a fair crop, at $1.25 a bushel, the produce will be $37.50. Cost, $20; profit, $17.50. Or, by Hampden county estimate, the profit will be, say $17.65.

Corn.—Produce, 75 bushels, at $1, is $75. Cost of crop, $30. Profit, $45.

Reducing these results to a tabular form, we find the profits of an acre of

Carrots, say	$75 00
Sugar-Beets	22 60
Ruta-Bagas	100 00
Turnips	30 00
Wheat	17 50
Corn	45 00

We do not pretend to accuracy. The cost of crops varies fifty per cent. in different sections

of country. Labor has no fixed price. The value of land and the interest on land, is as unsettled as anything can be; and the value of crops of all kinds depends upon the state of the markets, and the facility for transporting the crop to the market. Still we have made out a rough model, which every one disposed to do so can correct, as the almanacs say, for his own latitude. We doubt not that he will find one thing true, to wit: that root crops are among the most valuable of all the products of the farm.

It does not follow, we would add, ere we close, that roots are not excellent feed, even though they are of less profit as a crop for market. It is worth while to produce many things for our own use, which would not pay if carried off from the farm.

WONDERS OF THE SHORE.

[Under this title, there is an admirable paper in the last number of the *North British Review*. We extract a paragraph in which is given a graphic description of a singular worm:]

At all events, whether we are intruding or not, in turning this stone, we must pay a fine for having done so; for there lies an animal as foul and monstrous to the eye as "hydra, gorgon, or chimæra dire," and yet so wondrously fitted to its work, that we must needs endure, for our own instruction, to handle and to look at it. Its name we know not, (though it lurks here under every stone,) and should be glad to know. It seems some very "low" Ascarid or Planarian worm. You see it? That black, shiny, knotted lump among the gravel, small enough to be taken up in a desert-spoon. Look now, as it is raised, and its coils drawn out. Three feet—six—nine, at least: with a capability of seemingly endless expansion; a slimy tape of living caoutchouc, some eighth of an inch in diameter, a dark, chocolate black, with paler longitudinal lines. Is it alive? It hangs helpless and motionless, a mere velvet string across the hand. Ask the neighboring Annelids and the fry of the rock fishes, or put it into a vase at home, and see. It lies motionless, trailing itself among the gravel; you cannot tell where it begins or ends; it may be a dead strip of sea-weed, *Himanthalia lovea* perhaps, or *Chorda filum;* or even a tarred string. So thinks the little fish who plays over and over it, till he touches at last what is too surely a head. In an instant a bell-shaped sucker mouth has fastened to his side. In another instant, from one lip, a concave double proboscis, just like a tapir's (another instance of the repetition of forms,) has clasped him like a finger; and now begins the struggle—but in vain. He is being "played" with such a fishing-line as the skill of a Wilson or a Stoddart never could invent; a living line, with elasticity beyond that of the most delicate fly rod, which follows every lunge, shortening and lengthening, slipping and twining round every piece of gravel and stem of sea-weed, with a tiring drag, such as no Highland wrist or step could ever bring to bear on salmon or on trout. The victim is tired now; and slowly, and yet dexterously, his blind assailant is feeling and shifting along his side, till he reaches one end of him; and then the black lips expand, and slowly and surely the curved finger begins packing him endforemost down into the gullet, where he sinks, inch by inch, till the swelling which marks his place is lost among the coils, and he is probably macerated to a pulp long before he has reached the opposite extremity of his cave of doom. Once safe down, the black murderer slowly contracts again into a knotted heap, and lies like a boa with a stag inside him, motionless and blest.

WEEDS IN WALKS.

The following modes for preventing the growth of weeds in gravel walks, are copied from the correspondence of the *London Gardener's Chronicle*, and may prove valuable to some of our readers—at the proper season:

In order to prevent weeds from growing on walks, put a layer of gas-lime under the last inch of gravel. This also helps to bind the gravel.

The following is the way in which I managed walks when I was a gentleman's gardener. In one situation I held I had three miles of gravel walks to keep in order. In winter, when there was sufficient frost to freeze the gravel in the mornings, I employed the laborers in cleaning the walks with a half worn out birch broom, sweeping backwards and forwards, and then removing with a new broom what the old ones took off the surface. When the walks were covered with moss it was scraped off with a hoe before the broom was used. After having pursued this practice for 6 years, my walks looked as fresh and clean as if they had been newly graveled. Last season very few weeds made their appearance during the summer; by performing the operation when frost is on the ground, you not only remove all small weeds, but you sweep off most of the seeds deposited there to vegetate the following summer. If docks, thistles, or dandelions appear, cut out their crowns and put a little salt on them: you will not have to repeat the salting twice in one place.

IMPURE AIR IN WELLS.

Eds. Rural,—Having often read accounts of deaths of persons entering wells containing impure air, and having occasion to dig one the past summer, I took the precaution before any one entered the well, to try a lighted candle. I found on the last morning of digging, the depth being about thirty feet, that the candle would not burn lower than ten feet. For the purpose of expelling the gas, which had accumulated during the night, I first went to drawing the tub, which I used for drawing up dirt, up and down the well as fast as possible, but found no benefit from so doing. I then went to throwing water down, but with like result. I had about given up the idea of doing any thing more at my well at present, when the thought struck me that I would try the experiment of letting down fire, never having heard of such a remedy. I accordingly procured a kettle and filled it with light materials, such as chips and shavings, hooked it on to the rope, and let it slowly down. After remaining a few minutes I drew it up, tried my candle, and found it to burn as bright as on the surface, the

foul air being completely eradicated, so that the well could be worked in perfect safety. Whether this remedy has ever been tried by any one else I do not know. If such remedy would have the desired effect in all cases when tried, it certainly would be valuable information to those digging or cleaning wells.—*Rural New-Yorker.*

For the New England Farmer.

MONTHLY FARMER FOR JANUARY.

In reading the extracts of agricultural addresses, on page 31 of this number, I noticed particularly the following sentence from Mr. Fay's Essex County address:—"*He who delves and digs the earth from morning until night, has little time and less inclination for thought.*" This is very different from the usual style of such addresses. The advantages which the farmer enjoys for study and reflection, and his opportunities for profiting by the changes of the seasons and the successive beauties which the rolling year presents for his admiration and improvement, are generally dwelt upon by agricultural orators in poetic ecstacies, that are but poorly realized by him who sits down in a warm room to study, after a day spent in the woods with the thermometer pointing at zero, or by him who attempts to admire the glories of sunrise, after mowing long enough to be thinking of breakfast, or of his feet and legs that are "sopping wet" with the chill dews of a summer's morning. But if it is a fact, which I think few who have tried it with their own hands will deny, that farming affords "little time and less inclination for thought" and intellectual cultivation generally, what is the natural inference? Because we have but a single opportunity, shall that be buried in the earth? Because we have *little* time for thought, shall we give up thinking entirely and rely on our priest, our doctor, and our lawyer to do it all for us? By no means. The very fact that we have small means implies the need of great efforts. When we are most alarmed by apprehensions of a scarcity of hay in the fall, spring often finds us with enough and to spare. We saw that we had but little, and looking the fact boldly in the face, by our care and economy, that little became an abundance! To know our disease, then, is half its cure. And if hard labor does tend to make us mere "toil-worn machines at last," the sooner we realize the danger, the more immediately shall we seek to improve the little time and inclination for thought that we do enjoy. But how improve? There might be much said on this question, but I will say but little here. As a first thought, however, we would advise to read some agricultural periodical regularly. I say *periodical*, because books do not seem to meet the case. A book may be laid aside and forgotten; but a periodical that comes to us monthly or weekly, makes a fresh claim upon our attention, just so often at least. No farmer has a right to do less than this for his mind, if he would not become a drudge, a toil-worn machine, and finally in old age, a dotard, whose intellectual imbecility and weakness shall be more pitiable than the ravings of insanity, or the struggles of death itself. If he who puts an end to his physical existence is guilty of murder, can the mental suicide be regarded as innocent? A habit of reading and thinking, as well as the obligation to provide for our households, is a duty we owe to ourselves and to our Creator, which may not be neglected with impunity. Let us then begin the year with the determination, that, although "he who delves and digs the earth from morning until night, has little time and less inclination for thought," yet that little shall be faithfully and carefully improved. Reading matter is now cheap, and that which is appropriate to our business is rapidly improving in character and value. The monthly *Farmer*, with its forty-eight broad pages, enters upon the new year with a variety of contents that must stir up thought in the mind of every careful reader. We offer a few of our own thoughts on some of its articles.

"*The Concord Grape.*"—The remarks of Mr. Wilcox express a feeling that I find prevails to a great extent among farmers in the country, and am therefore glad to see them treated so respectfully in the *Farmer*, both by the editor and by the proprietor of the grape. Whether the remarks of Mr. W. are just, or illiberal, in this case, is of little importance in comparison with the influence of the impression, that "the Press which tolerates such speculations, does no good service to the community." For my own part, I see no objection to a man's selling grape vines for five dollars a-piece so long as there are plenty of buyers at that price. After the fever is over, and the five-dollar purchasers are all supplied, the price will probably come down; and then, if the good qualities of this grape don't come down too, friend Wilcox and I may perhaps have a vine of our own to sit under. But in the mean time, it may turn out a "multicaulis," or a "rohan," or it may prove a "Baldwin," or a "Bartlett,"—the five-dollar men will decide this at their expense, but for our benefit. Why should *we* grumble.

"*Ruminating Animals.*"—Some popular notions about chewing the cud denied.

"*Witch Grass.*"—One article informs how to destroy this pest by cultivation, but with little hoeing; and another article recommends summer-fallowing.

Articles on "Sheep and Wool," on "Canker Worms," on "A Two-Acre Farm," "Gale's Straw Cutter," "A Journey" to New Jersey, Pennsylvania, &c., "London Vegetable Markets," "Agriculture in North Carolina," "Changes of Food," "Prepare for Winter," are but specimens of those on which we have no comments to offer.

"*French Garden Implements*," &c.—In France, it seems that farm labor is poorly paid, yet such are the habits of the people, that a man and his wife, boarded and lodged by their employer, laid by $100 of the $180, which were paid for the labor of both for a year. If our expenses increase faster than our income does, it will take a long time to get rich, and large wages do little good.

"*Talk about Guano.*"—And a very interesting chat it is. The remark which was ascribed to the editor, but which it appears he never made, that guano in Massachusetts had done more hurt than good, is one which I really believe would express the result, so far as I have personally observed its effects, in my own neighborhood. If merely a few preliminary experiments, which leave the editor of the *Farmer* with "no means of judging" whether the losses or the benefits are the greater, cost our country ten millions of dollars,

where will farmers get the money to pay for the amount that will be required when the vote of Rockingham County shall decide that guano may "be used to advantage by our farmers in New England."

"*How long it takes to get Apples.*"—Just two years, according to this article; which, to me, has something of the *ring* of "Book-farming." Five years ago, next spring, I set out something over one hundred apple trees. I did not suppose my trees or my soil were good-for-nothing, and I have tried to give the trees a chance to grow, but I have seen only a few apples as yet,—probably not over forty or fifty in all. Part of my trees were large; a part small. The smallest have done the best; indeed the largest tree in the orchard now, was one of the smallest when planted.

"*A Home in the Country.*"—How to buy a farm worth four or five thousand dollars, and to secure to your family the income of five thousand dollars beside, with a capital of only $2,200, (two thousand two hundred dollars!) If the writer of this article had been President of the United States Bank, I think he would not have cared a snap for the removal of the deposits.

"*On Beautifying the Farm.*"—An exhortation by the editor, to plant trees so as to produce something of the tasteful and beautiful around our homes; in connection with which we might allude to the "enthusiasm" which the little groves and shade trees about Philadelphia inspired our usually calm and practical friend, Dr. Brown, of Wilmington. He thinks many farms in Massachusetts would realize in a few years from the increased value of their farms, at least ten dollars a day by planting trees now.

"*Cycle of Good and Bad Crops.*"—The design of this article is to show that there has been for many years a pretty regular succession of periods of four or five years of alternate good and bad crops, and that we have at this time just entered upon a series of poor crops. Rather discouraging.

"*Home-made Furniture.*"—Such articles are too scarce in agricultural papers. The very word, "home-made," has become antiquated. Not only is our clothing ready-made, but every implement, from the mowing machine to the hand-sled, must pass through the hands of mechanics. This is well enough, if we can afford it. But there is an old adage that says, "the gods help those who help themselves."

Barns.—We have descriptions of a twenty-thousand-dollar barn, in Great Barrington, Mass., and of a Concord barn, 125 feet by 54.

"*A Good Move,*" is what the *Country Gentleman* calls a proposition recently made in Congress for the establishment of a National Agricultural School. But if Uncle Sam should make as bad work in teaching the science of agriculture, as he did in estimating the value of "home manufactures" up in New Hampshire, as appears by Mr. French's article on "Other People's Business," he had much better leave that business with the schoolmasters that are already abroad.

"*Pruning Apple Trees.*"—As I am unsettled in opinion on this subject, I read everything relating to it, with interest. Forest trees get along comfortably without trimming, and so do shade trees generally. But, says Mr. Brown, "apple trees grow with a superabundance of limbs that provision may be made for casualties, and an opportunity afforded the cultivator to *train according to his particular "taste."* Now that is very kind in Nature, certainly; but it would save me much doubt and hesitation if she had labelled these "superabundant limbs" respectively, as the case might be, "jackknife," "handsaw," "axe," &c. If Mr. Brown is disposed to be offended by these remarks he must give the editor half the blame, for attaching that article on page 38 to his recommendations on "Beautifying the Farm."

"*Fall Plowing.*"—On this subject we have three or four articles.

Illustrations.—Gale's Straw Cutter, the Hurlbut Apple, Bracketed Cottage, and improved Short Horn Bull.

Among the many articles which I have passed over, I must at least name "Turnips and Salt Hay," "Agricultural Implements," "Organic and Inorganic Matter," "Grain Crops," "Brief Practical Hints," "Winter Care of Cattle," &c. &c.

Winchester, Jan., 1855. A READER.

A FEAT IN CHEMISTRY.—During the recent lecture delivered by Professor B. Silliman. Jr., in New York, he solidified carbonic gas. This was effected by bringing sulphuric acid in contact with carbonate of soda, in a strong iron vessel, capable of resisting an expansive pressure of *thirty-four atmospheres*, or 510 pounds to an inch! Prof. S. stated that this experiment has been given up entirely in France, in consequence of the bursting of several iron vessels, by which several persons had been killed. But he stated that the iron vessel used on this occasion, had never been known to burst, and the experiment was considered not at all dangerous. As the liquid (it being in a liquid state in the vessel) was drawn off, a larger portion instantly evaporated, and by the evaporation reduced the remainder to the freezing point. In this way, several pounds of solid carbonic acid were obtained. It had the appearance of the whitest snow, and was so cold that by holding it only three seconds the hand would be frozen. He placed a portion of it around a long vessel containing mercury, and froze the mercury solid! The mercury was then taken out and hammered like lead.—*Albany Register.*

THE WAY TO BUILD UP A STATE.—Governor Grimes, of Iowa, in his inaugural address, thus describes the wants of the thriving State over which he presides:—

"She wants educated farmers and mechanics, engineers, architects, metallurgists and geologists. She needs men engaged in the practical duties of life, who have conquered their professions, and who are able to impart their knowledge to others. She wants farmers who shall be familiar with the principles of chemistry as applied to agriculture; architects and mechanics who will adorn her with edifices worthy of so fair a land; and engineers and geologists who will develop her resources, and thus augment the wealth and happiness of her citizens. This want can only be supplied by the establishment of a school of applied sciences. I have no hesitation, therefore, in recommending that a University fund be appropriated to establish a practical scientific or polytechnic school."

WIRE FENCES, MADE BY MACHINERY.

It might not occur to a casual observer, that the fences of the United States cost more than twenty times the amount of all our specie; nevertheless, such is the fact. There is no country on the dial of the globe, so well furnished with wood and stone—the common materials for fencing—as many portions of this; yet so great is the cost of fencing here, that it has become a burden, "grevious to be borne," on our national industry. Many of our States have little or no rock, from which to make stone walls; those formerly occupied by prairies have little wood from which to make rail fences; and our soil, climate and physical geography are such, that hedges or live fences are altogether impracticable. Solon Robinson, Esq., the able agricultural editor of the *New York Tribune*, says, that in all his travels, he has never seen but one good live fence in the United States; and that, he observes, was "protected on one side by a board fence, and on the other by a rail fence."

Indeed, the agricultural mind of the country has long been conscious that a total revolution must, sooner or later, supervene in our modes of fencing. *Iron fencing* has been suggested, and, doubtless, would have come into general use, but for the want of a method of making it by machinery. This great want has at length been supplied. John Nesmith, Esq., a prominent man in the manufacturing interest in Lowell, has invented and patented a machine for the manufacture of *wire netting*, for fencing, trellis-work and other uses, considerable quantities of which have been made and sold by the Lowell Wire Fence Company.

This fence consists of a strong and beautiful netting, woven by the machine, varnished with asphaltum blacking, coated with cold tar, painted, or galvanized, rolled up in portable rolls, from thirty to sixty rods in length, and sold to consumers at from sixty cents to $1.50 per rod—the price varying according to the height of the fence, the size of the mesh, (or squares,) and the number of the wire. It can be readily set up by any ordinary farmer, and no rails are necessary, but the netting is fastened by wire or staples, to posts of

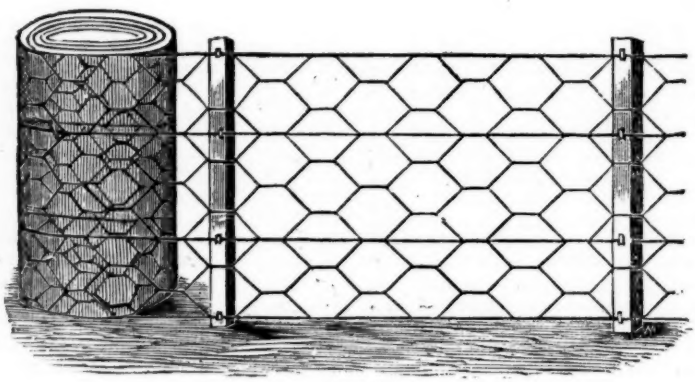

Fig. 1.

wood, iron or stone, placed from eight to fifteen feet apart, and the edge of the netting is to be kept on a level from one terminus to another. When properly set, it is strong enough to "hold" an ox, and too *close* to be penetrated by a chicken. If varnished, painted or tarred once in five or six years, it is calculated to last a century or more. It offers so little resistence to wind and tide, that no gale can blow it down, or flood wash it away. If fastened to posts, set upon feet instead of being set in the ground, this fence may be laid flat on the land, or entirely removed on the approach of the flood-season in districts subject to floods, and set up again as good as ever, when the flood has subsided. It excludes none of the rays of the sun; it harbors no weeds, or vermin; it covers none of the soil, like hedges and walls, and the peculiar mode of its texture enables it to undergo without the slightest injury, that alternate expansion and contraction to which all metallic substances are subjected by the changes of temperature incident to the atmosphere. All who have examined or tried it, attest that it possesses in the highest degree, those seven cardinal qualities in a perfect fence or trellis-work—strength, closeness, beauty, lightness, portability, cheapness and durability.

Many kinds of this netting are made, adapted to all uses, from cattle-fencing to window-netting. All sizes of wire are used, from No. 10 to No. 40.

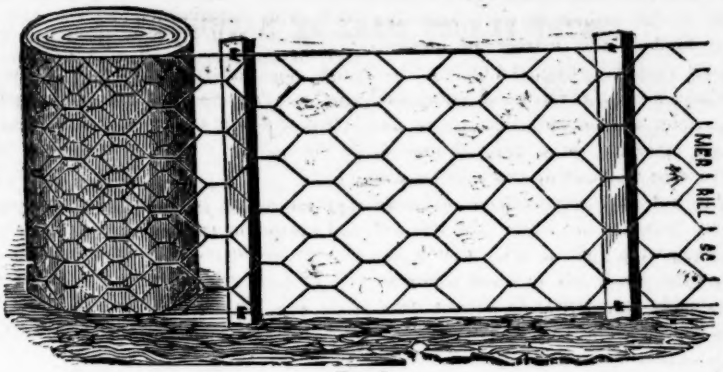

FIG. 2.

and any kind can be made, suited to fencing for cattle, sheep, swine, poultry, gardens, cemeteries, parks, roads, railroads, trellis-work, etc. We are happy to insert some cuts presenting a more vivid impression of the practicability of this fencing, than any words could convey.

Fig. 1. The fencing represented is four feet high; the mesh or squares six inches; the straight or

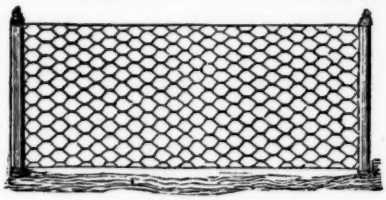

FIG. 3.

lateral wires of No. 10 wire; the body of the fence of No. 12 wire; and sold at from 75 cents to $1,50 per rod.

Fig. 2. This fencing is of the same height as the former, with wire and mesh of the same size, but without the lateral wires running through the body of the fence. Price 60 to 95 cents per rod. Both these make first-rate farm fences.

Fig. 3 represents another kind of this fencing, from sixteen inches to four feet high, with mesh of three inches. The body of this fencing is of No. 15 wire; the price from 75 cents to $1,50 per rod. This fence, in its several varieties, makes an admirable sheep, poultry and garden fence; that four feet high serves for heneries. Among those who have tried this mode of fence, is Richard S. Fay, Esq., the popular agricultural lecturer, who writes of it as follows:—

"*Boston, Jan.* 5, 1855.

CHARLES COWLEY, Esq., Agent of the Lowell Wire Fence Co.

"SIR:—Your favor of Jan. 2d is duly received. I have used the Lowell Wire Fence during the past summer, for folding sheep at night on land that I wished to manure, shifting once or more every week, and have found it answer the purpose perfectly. I have also enclosed an acre or two of ground with it for the purpose of keeping a few sheep separate from the flock. If properly set, it would hold any thing, and for smaller animals, particularly sheep, it is impossible that they should break it down or escape from it. I have had some iron rods made with a double foot, which I drive into the ground and attach the fence to it either by copper wire or stout twine. A man and a boy will inclose a quarter of an acre in less than an hour, having these posts, which should be set not more than a rod apart.

When I change the fence to a new spot, I unfasten it from the posts—throw it down—begin at one end, and roll it up as you would a carpet. And so in re-setting, reverse the process, rolling it out where it is to be set; drive down the posts, and then raise it and attach it to them. My fence cost $1,50 per rod, and it is a cheap mode of handling or inclosing at that price. I understand now that it is made much cheaper.

I am very truly yours, RICHARD S. FAY."

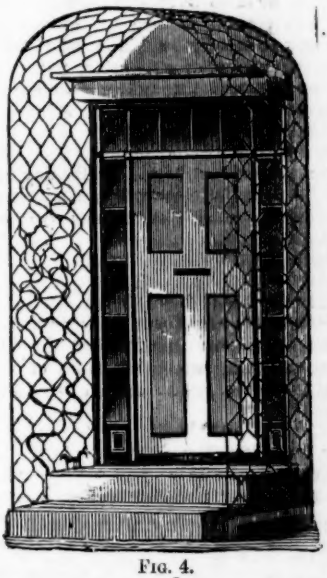

FIG. 4.

Fig. 4 represents the door of a house, arched with some of this netting as a trellis-work.—Nothing more elegant could possibly be devised

than this, which is at once cheap, light, durable and tasteful in the highest degree. There is a still smaller kind of this netting, of one-inch mesh, used for window-netting, etc. etc.

On the whole, we admire this novel fence; and when we consider the unreasonable cost of our present modes of fencing—the growing scarcity of wood—the want of stone in many States, and the acknowledged impracticability of quick-set fences, we are forced to the belief that this will ultimately become the general mode of fencing. We trust that the gentleman, to whose genius we owe this valuable invention, will realize handsomely from its success.

PEACH-GROWING.

Having noticed some inquiries in the *Newspaper* concerning the growing of peach trees, and the manner of protecting them from the worm or grub, and having had some experience in the rearing of trees, and much success in their cultivation, I take the liberty of writing a few hints, which I hope your correspondent will test.

To insure the regular germinating of the seed, they must be placed in a tub or hole in the surface of the earth, exposed to the action of the frost, or freezing and thawing, which breaks the shell and gives them an equal start in the spring. Without this precaution, many of the seeds would not germinate at all, and others get the start and overrun and shade the rest, rendering the nursery uneven and irregular.

If your correspondent wishes to grow trees for market, he must select a rich, gravelly loam, plowing deep and in good order; the drills three feet apart, and the seed to be placed ten inches in the drill, to be done as early in the spring as the ground will permit. When the sprouts appear they must be carefully hoed, and, when six inches high, a common corn cultivator, with a steady horse, can be passed through, and thus the weeds and grass can be exterminated without much manual labor.

When the trees attain the proper size, they can be either grafted or budded with any variety. But the best plan is to grow from choice seed, not grown from a grafted or budded tree, as they will not produce the same variety of fruit.

The best situation for an orchard is on hilly or rolling land—north or south not material; but to insure large and well-flavored fruit, the land must be *rich and kept in a high state of cultivation*. Corn and wheat must be excluded, but the first and second years a hoed crop of potatoes or tobacco, followed by clover, which should be plowed in while green.

When the trees begin to bear plentifully, nothing should be allowed to grow in the orchard but the trees, carefully worked with the plow and cultivator. When trees are heavy bearers, and the fruit attains the size of a shell-bark, they ought to be thinned by hand, and all the smaller portion removed to make room for the more thrifty growth.

I have now come to the most difficult part of peach-growing, which is the grub or worm. It attacks the root of the tree near the surface, and, if not removed, will soon kill it. I have tried many experiments, and the best remedy I have found, is to lay bare the roots of the tree early in the spring, and, with a pointed instrument, (an old table-fork with but one prong is a good one,) to ferret out the enemy and kill him. Wherever the glue exudes you will find a nest of worms; kill them and scrape the roots with a knife, and apply a kettle of boiling water. The roots can be laid bare until after blooming, as that will retard the sap and bloom until the settled weather of spring; a pint of salt and a pint of lime should then be applied to the roots, and the dirt returned. It is an effectual remedy, which, I hope, your correspondent will test.—*Phil. Dollar Newspaper.*

THE GARDEN.

BY E. PORTER DYER.

A garden, a garden, O give me a garden,
With soil of a mellow dark mould,
Where my face may get tanned, and my fingers may harden;
I would not exchange it for gold.

This spading, and hoeing, and raking, and wheeling,
Preparing to scatter the seed in,
To my mind the goodness of Him is revealing
Who planted a garden in Eden.

The scent of fresh mould—'tis refreshing to smell of—
The toil it requires is reviving;
The sweat of the brow, though 'tis nothing to tell of,
It sweetens the gardener's living.

Our first father found it an exquisite pleasure
To practise the science of pruning,
Or walk with his Eve in the shade at his leisure,
For instance while "taking his nooning."

And whether he planted corn, beans, or tomatoes,
I find not a word or tradition,
But always supposed when he dug his potatoes,
He found them in healthy condition.

His strawberry plants must have looked quite delicious,
At least, while in process of bearing—
As berries and cream were regarded nutritious,
Of cream, his dear Eve was not sparing.

She always took pleasure in setting her table
To study the taste of her Adam;
And he from his garden, whene'er he was able,
Found comfort in picking for madam.

And often I've thought had not garden employment
Been furnished in Eden for Adam;
His wife had been homesick, and all his enjoyment
Been making herb-tea for his madam.

A Good Cow.—One of my neighbors has an American Cow, five years old, which has given him milk enough to yield 1½ pounds of butter a day, from 1st of June to 1st of October, besides the milk and cream needed on the table for four persons—which cow he never thought of valuing more than $50.

The truth is, some folks have such a fancy for things *far fetched* and *dear bought*, that they will not use what springs up *near home* at any rate. How long will it be before *Yankees* will be persuaded that Yankee stock is as good as any other, when properly cared for. I know but little on these subjects—but this I do know, that it is easy to find Yankee cows good enough for any body. *Granite Farmer.*

HARD TIMES.

When the wealthy merchant is compelled to borrow money at two per cent. a month to meet his liabilities, he complains of hard times. When the manufacturer finds his expenses to exceed his profits, and receives no dividends, he complains of hard times. When stocks and lands are low in the markets, the lawyer and doctor, and all those who have laid away a surplus for a rainy day, imagine they know something of hard times. But none of these people, though they complain most bitterly, are the real sufferers, in such hard times as now exist in our cities. The merchant may fail in his business, and the manufacturer may stop his machinery—they may assign their estates for the benefit of their creditors, and take the benefit of the Insolvent act, but still they live in fine houses, their tables are abundantly provided, and their children well clothed and educated. They may suffer from disappointed ambition, but not from hunger, or cold, or nakedness. There *is* a class, however, whose idea of hard times is not limited by inability to pay their debts, or to educate their children, or to wear fashionable clothing. There are hundreds, nay thousands, who have been, until recently, in comfortable condition, receiving liberal compensation for their labor, who rise in the morning, not knowing when or how they shall find food for the day, for their little ones, —willing to labor, but unemployed—thousands who have been bred and educated with the idea, that to receive charity is a disgrace to an American, who yet see no way but through the almshouse to avoid actual starvation. Such is the condition of many thousands in New York, of some, even, in our favored city of Boston.

"The poor ye have always with you," is a text, which they who have more than a bare competency, should bear constantly in mind.

How our duty to the poor can best be performed, is a problem which has never, by statesmen and philosophers, been satisfactorily solved. Public charities, permanently established, by means of which food and clothing are systematically distributed, may undoubtedly tend to render the poor improvident, and to overcome the true pride of independence, while private individual charity seems wholly inadequate to meet the demands of humanity.

Again, while we have enough and to spare for all who are born on our own soil, we see sometimes, in a single day, tens of thousands landed at once in a single city, a great proportion houseless and friendless, to perish by starvation, or to excite your charity. Of the right of foreign governments thus to flood our country, with the poor, and often the criminal, there is probably little difference of opinion. But our duty, as men and as Christians, is limited to no country, and to no sect. Doubtless, charity should begin at home, with our family, and friends, and kindred, and townsmen, and countrymen, but it should end only wit our means and opportunity for doing good to our fellow-men. "The poor ye have always with you," and he whose heart is in the right place, will be puzzled with no nice questions of politics or ethics, how "to do them good," while he who loves his money better than his brother may find objections to every mode of relief suggested. "I know," says a modern writer, "how hard it is to see through a dollar, though misery stand behind it, if the dollar be your own, and the misery belong to your brother."

In this blessed land of plenty, it is enough for us to know that our fellow-men are hungry and naked, to make our duty plain to feed and clothe them. Let us make them comfortable first, and afterwards preach to them of the doctrines of religion, and the true relations of social life.

To the farmer, the present distress brings a lesson that cannot be too deeply read. While misery, naked and hungry, is scared from her midnight haunts, and walks at noonday in the market-place of our cities, maddened almost to rebellion against the law—while the mechanics in some of our cities are holding meetings in public places, avowing principles, which, if carried out, would lead to all the horrors of a Parisian mob—there is no lack of abundance with the farmer.

Overtrading, excess of importation, the failure of banks and railroads, have no terrors for him. Nature is his banker, and her discounts are not suspended, when his distress is the sorest. His small deposite of seed in her vaults, is returned with usury in abundant harvests. Is it not a fact, that the rural districts of New England are, at this time, in a condition of comfort and abundance, while everywhere else are heard cries of deep distress? This is no accidental circumstance. It is a legitimate result of agricultural life. Again and again, we have urged this view upon our readers, when our young men were rushing from the homes of their fathers, into the cities and towns, to swell the already crowded avenues of trade and manufactures.

Let us again repeat what has often been said already in our columns, that the life of the farmer who owns the land he tills, is the life most favorable to true independence and the highest virtue. Stick to the land, and invest your money, if you have any, in your farming business, remembering that the common prayer, "let me be quickly rich," is seldom answered, and if ever, oftenest to the hurt of him who utters it.—Comfort and education and peace may be univer-

sal, but wealth can, from the nature of things, be but occasional. With all that reasonable beings can ask, let our farmers be contented with their condition, and not envy the rich man his gold, for in the language of Izaak Walton, which we quote from memory, "The cares that be the keys that keep those riches, hang heavy at the rich man's girdle, and clog him with weary days and restless nights."

At the same time, let us be ever mindful to *help one another*.

For the New England Farmer.

DAIRY PRODUCTS.

MR. EDITOR :—I have examined, with much interest, the returns on this subject from the Counties of Worcester and Middlesex. After what has been said of extraordinary "butter products," I did expect to find some such drawn out by the generous premiums offered by the State Society. The products from the towns of Worcester and Barre are quite fair for the season, (considering the all-pervading drought,) but they are not better than can be found on many farms where the pasturage is good. On the farm where the butter is made for my family, the cows for years have yielded an average product of *one pound* a day, for the entire butter-making season, and in the best part of it, nine or ten pounds per week, for each cow, on grass feed alone. *These cows are entirely native.* I do not see that Mr. Lincoln's *improved stock* has done any better than this. I sincerely regret that the "eminent farmer" of Middlesex, should not have rendered a full account of the product of his Devons for the season. Such an account would be much more satisfactory, than "October products" alone. It is with cows, as with persons—to rightly understand their character, they must be summered and wintered. You cannot begin to form a true idea of the value of a cow, from the product of one week, or one month,—it must be for the season entire, with ordinary fair feed. Any standard of judgment not based upon such a foundation is not to be relied on. I remember to have seen in the *Michigan Farmer* a few days since, a statement of four cows that yielded 174 lbs. of butter, and 1050 lbs. of cheese, in the space of 100 days, the present season. These were said to be native stock. According to my notions, this was doing quite well. A few years since, I remember the *Albany Cultivator* gave a statement of the dairy products on the farm of Mr. John Stone, Jr., of Marblehead, for which he obtained the first premium of the County Society. This stock consisted of four cows, all descended from one ill-looking, hornless animal, that was purchased from a Hampshire drove, about thirty years since. They were pastured on five acres of ground, and no more, with plenty of pure water from the adjoining hills. In the space of forty days they yielded 240 lbs. of butter, of first quality. These are products in the ordinary way. There may be Durhams, Jerseys, or Devons, that will do more and better than this—but when they will do it on the same kind of feed, and with the same attention, and no more, I think it will be safe to offer double price for such butter.

January 8, 1855. ESSEX.

For the New England Farmer.

PROFITS OF HENS.

FRIEND BROWN :—I herewith send you the following statement of my last year's experience in the hen line. If you think any of our farmer friends could profit by my experiments, you can publish it. I send it to you for the benefit of that class of persons who say "hens are more plague than profit."

DEBTOR.

Jan. 1, 1854,	bought 8 hens and 1 cock—cost	$3 50
"	4 turkeys	3 00
March 8,	bought 8 hens	2 67
"	35 ducks' eggs	89
"	duck	50
Corn and meal during the year		20 64
Cost of fowls and keeping		$31 20

CREDIT.

69 chickens and turkeys sold		$31 44
115 dozen eggs sold and used		27 52
On hand Dec. 31, 14 hens and 1 cock	@.50	7 50
6 "	@ 37½	2 25
12 ducks	@50	6 00
		$74 71
Less cost		31 20
Net profit on this small lot of fowls		$43 51

These are facts, Mr. Editor. Why cannot our country friends, many of whom have ample room and far better accommodations, make three or four times this amount every year?

Yours truly, A. F. L.

Malden, Jan., 1855.

For the New England Farmer.

BASKET WILLOW.

MR. EDITOR :—As the introduction of any new tree, shrub, vine or plant which can be cultivated with profit, improves the condition of the farmer, and adds wealth to the country, it is with much pleasure that I am able to submit to your readers the following facts in relation to the cultivation of the *European Basket Willow*.

Having, in the spring of 1853, obtained several hundreds of willow cuttings, I planted them out about the 20th of April, on land which had been previously prepared for a crop of potatoes. The character of the soil was a deep sandy loam. After planting out, which was very hastily done, they received no better attention than is usually given to a crop of corn or potatoes; they made a growth of from three to six feet in height, and in November they were cut up and the stumps allowed to remain unprotected through the winter. Last season they received neither manure or cultivation, but were allowed to grow in their own free, natural, yet graceful way. On cutting them up last November, I measured a rod, and on weighing found the product to be 112 lbs., or after the rate of 80 lbs. less than nine tons to the acre.

A very large portion of them grew from six to eight feet in height. Those which I left uncut have proved perfectly hardy, nor have I a doubt that they are perfectly adapted to this climate.

There is now a machine for peeling them at a trifling expense, and there is, in my opinion, no longer a doubt that it will prove one of the most profitable crops which the farmer can grow, nor can I see any reason why it will not make one of the best land fences of any material which has ever been introduced. I am resolved to give them

a fair trial, and shall in due time, with your permission, report the result. Will not others do the same? E. Hersey.

Hingham, Mass., 1855.

Remarks.—This subject is one of much importance, and ought to receive more attention. We have not the statistics at hand to show what the amount is, but the sums are very large which are annually sent out of the country for willow. We more than suspect that the idea that willow cannot be raised with profit in this country, has been industriously circulated by interested parties. We hope to hear from our obliging correspondent on this subject again. We have specimens of his growth of willows now before us, very smooth and even, and about nine feet in length.

For the New England Farmer.

AN AGRICULTURAL GLIMPSE OF WASHINGTON CITY.

BY HENRY F. FRENCH.

My Dear Brown:—"This is a great country," as the orators all say, and one is not obliged to go out of it to see sights quite unfamiliar to many who read the *Farmer*.

A glance at so much of the agriculture of this region as may be seen on Pennsylvania Avenue, the great thoroughfare between the Capitol and the Presidential mansion, would illustrate a favorite idea of your own that "there are different fashions in different places," in a manner that would amuse a Massachusetts or New Hampshire farmer. I have just taken a walk through the city, and on my way passed through the market, which is more crowded than usual on account of approaching Christmas, which is regarded, with the remaining days of the month and New Year's day, as a festival season, not only by members of Congress, but by the miscellaneous crowd, of all colors, who inhabit this great city. And let me say, in passing, if we New England people would set apart more time for social amusement, instead of devoting it all to working and sleeping, we should find it for our advantage.

Let me try my daguerreotype upon a few objects presented by the great avenue on a market morning. There comes a load of hay, drawn by an ox-team. There are four animals, called oxen; two of them are of a grizzly white, without horns, and the others of dark colors, with long horns. They all look of different ages, ranging from three to ten, and, from some principle of taste that prevails here in such matters, each yoke is made up of a white and a dark-colored ox, a horned and a hornless one. They are all small, and poor as skeletons. The yokes are nearly straight, about such as you could hew out of a four inch joist with a broad axe, and look as if they would answer just as well either side up. The bows are small sticks, with the bark on, and one end of each is nearly a foot longer than the other, with the slanting cut of the axe on each, showing that the length is just as the stick was originally cut. A rope is attached to the horn of the near ox of the forward yoke, wherewith to pull them round, so that the team need not indulge their constant propensity to run away from the driver, when they ought to *haw*. The cart has small, narrow wheels, with two sticks of round timber for sills, and two sets of hoops on each side, bent into the form of half circles, and the ends thrust into the sills, to form the sides of the cart.

The load consists of not more than half a ton of hay, on the top of which sits "a gentleman from Africa," with a pole about twelve or fifteen feet long, with the bark on, and a line of no particular length on the end of it for a lash. This is the driver, and he whips the oxen most of the time, while two other darkies, a small and a big one, seem to act as an advance guard, sometimes riding on the load, but, in case of emergency, running to the off side, to scare the team round, when a pull on the rope is not sufficient. Riding at a short distance behind, on horseback, is a white man, who probably owns the entire set of quadrupeds and bipeds above described, and who finds it necessary to be near enough to take the pay for the hay when sold. The hay is worth "a dollar and a *levy*" a hundred, or twenty-two and a half dollars a ton. And so this tasteful procession moves up the spacious street, amid gilded coaches with splendid horses, and servants in livery, while the paved walks on either side are crowded with "fair women and brave men," in rich attire of laces and furs and velvets, interspersed with negroes and occasional pigs, to correspond with the variety of the carriage ways.

There is a load of wood, of about half a cord, on a wagon drawn by two mules and two horses—not a pair of mules and a pair of horses, but a mule and a horse in each *span*. The pole of the wagon is very long and nearly touches the pavement, while the forward animals are so far off of the hinder ones, that they hardly appear to belong to the same establishment. Upon the near wheel beast, on an old saddle, rides the driver, with a short cart whip. He is a negro or mulatto, and keeps up a continual discourse with his cattle, which they understand better than I.

The collars, like most of those used for mere labor, are of braided straw, and the hames of wood. The reins of most of the horses about the market are of hempen cord. Indeed, the whole fitting out of a negro servant for market—man, beast, cart and harness, is of the poorest that

will hold together. Nothing that I ever saw in New Hampshire, except the Gipsey basket-makers, deserves to be exhibited in the same museum, or anywhere else, on the same day. But this is only a partial view. Look again, and you may see as splendid a team of draft horses as Boston affords, with a huge block of marble on a low car. The animals are fat and well groomed, large, and fitted with fine harnesses, and every thing indicates thrift and energy. That is a team owned by a contractor upon the public works, or perhaps one of Uncle Sam's own teams, which, like everybody else fed at the public crib, are in good condition.

Roaming about the broad streets, shivering in the cold and mist, are numerous poor, pitiful objects, in the shape somewhat of cows. They are not so poor, now, as they will be next spring; but to us, who live where cattle are not suffered to go at large, and where the idea prevails that milk cannot be manufactured even by a cow out of a north-east wind alone, to us they present a hopeless picture. Most of them have no horns, and this fact seems to render them still more objects of compassion. The cattle here are a mixture of the short-horn Durham, and the Buffalo or hornless breed. They are of fair size, and if well fed, would doubtless prove good milkers. There are no enclosed pastures about this city, but the cows, in summer, run upon the extensive commons, and in winter are about half fed at home, and then turned loose to find what they can in the streets. Various plans are devised to induce them to return home at night. Starvation compels them to it in winter, and in summer the calf is kept, a great part of the season, as additional security. As a consequence of this mode of *taking care* of the cows, milk is sold for eight or ten cents a quart, wine measure, and butter for from thirty-one to forty cents a pound.

As to swine, they are in the streets, upon the sidewalks, and everywhere else. What the Irishman said of Cincinnati might be said with equal truth of Washington, that every third man one meets is a hog!

But enough for this time. After I have taken another walk through the market, I shall, perhaps, give your readers a pen and ink sketch of such features of it as are not familiar to the eyes of Northern farmers.

Truly yours, H. F. F.

Washington, D. C., Dec. 27, 1855.

Swamp Muck.—There are some localities where muck of good quality is found that cannot be reached by wheeling. It can be done by sledding, and now is the time to get it out. Sledded out in this and the next month, and strewed around the stable yard or thrown into the pig-stye, it will be a most valuable compost by the time manure is wanted, in the spring. It will be valuable as a manure, if only hauled out and spread in shallow piles to be operated upon by the frosts of winter. It is better to place it in the yard or stye. It is altogether preferable, however, to let muck hauled out so late, remain over the following season, being occasionally hoed or shovelled over in the yard. It thus becomes thoroughly worked over and saturated and mixed with the droppings of the yard. However, it matters not so much where you put it, or how long you keep it, as that you *get the muck out.*—*Granite Farmer.*

SENSITIVENESS OF BIRDS.

A Buffalo paper relates the following anecdote:—

"A friend of ours has had for a long time a very superior canary bird, which has been celebrated for its excellence as a songster, and for which he has been offered large sums of money. About three weeks ago our friend being awakened from a "nap" by its voice, rose and hastily exclaimed, "D—n that bird." The bird, then at the height of its song, suddenly ceased its note, and, from that time to the present, has never warbled or even chirped, but has maintained an unbroken silence. What philosophy of instinct or of mutual affection between man and his pets account for this?"

We have heard instances of a similar character, and therefore are inclined to place full faith in the above, extraordinary as it seems. A gentleman devoted to the study of natural history, and whose practical acquaintance with birds is very great, once told us the following of a pet of his. He said he was given one time to the folly of flying into a furious fit of passion upon any small provocation, and that the effect of this manifestation of bad temper upon the bird was very singular, seeming to produce in it a somewhat similar disposition. Whether his anger were manifested toward the bird, or toward some one else in the room, no sooner would his eyes begin to kindle, than his bird would made a sudden dart at them. Upon several occasions he came very near losing the sight of one of his eyes, in consequence. And he became therefore exceedingly cautious how he gave way to fits of anger in the presence of his little pet. To this circumstance, he attributed, we know not how truly, a very great improvement in his power of self-government.

The same gentleman also informed us, that his wife had chosen one among his birds as an especial favorite; and had cherished it so much that the little creature seemed to be positively unhappy when she was not present. It was thought best therefore to try to wean the bird a little from her, and she was desired to take no notice of it for a time. His wife did as requested, and the next morning, when she entered the room where the birds were, repulsed the little creature as it flew towards her; and when it flew back again to its perch, began to fondle another. A few minutes elapsed, and hearing a slight noise, she turned again towards her former pet—the discarded favorite had fallen to the floor, dead.

Other anecdotes of a similar character have been related to us, going to prove the extreme

sensitiveness of these little beings. In some cases manifesting their sense of neglect on the part of their owners by grief, as in the above instance, and at other times by exhibitions of anger, and even of revenge.

While we are upon the subject, we may state that the naturalist to whom we have referred, strongly condemned the practice of keeping single birds, both as cruel, and as injurious to their health. He gave it as his opinien, drawn from much observation, that there was no cruelty in confining certain species of birds in cages, if the cages were reasonably spacious, and they were not deprived of those social pleasures which constitute so large a proportion of the enjoyment which the Creator designed for them. The species from which pet-birds are generally taken, he considers naturally fitted to enjoy companionship with man; and like the dog and the horse, happier in a restricted sphere with him, than in a state of absolute freedom without him. But to separate the male and female bird, he considers, as we have said, both injurious to the health and happiness of these floating remnants of the vanished Eden.—*Saturday Evening Post.*

TELESCOPE GLASSES.

The manufacture of telescope glasses is one of the most intricate and nice undertakings in mechanism. The risk of securing good glasses even after months of labor, is very great, and consequently gives great value to a perfect one.

The manufacturers first take about 300 lbs. of flint glass and fuse it by a very hot fire. While in a liquid state in the furnace, the vessel containing it is walled completely up, and suffered to cool very slowly, sometimes occupying two months in the process. When perfectly cool the mass is fractured by a process which is retained a secret among manufacturers. The fragments being of various sizes are of different power of reflection, and are worked into glasses proportioned to their powers. In working them into form, the edges are first ground so that they can be looked through in every direction, in order that it may be ascertained if they contain any imperfections, such as cracks, specks of dirt, or bubbles of air. In case anything of this kind is discovered, they are cut into smaller size, but if perfect, then they are ground into size and form to suit the design of the manufacturer. When this labor is completed, they are annealed or heated almost to fusing, in order to give them a perfect polish and shape, and also to free them from brittleness. The process is slow and tedious, and requires great skill to make them perfect. An object glass which was found in the streets of Munich, when cleaned up and annealed, was sold for $3,000, and was only six inches in diameter.

The glass which is being manufactured for the observatory at Ann Arbor, is to be seven inches in diameter, and the whole telescope will cost only about twice that sum, so that it will be seen that nearly as much value is placed upon the small object glass, as upon the whole complicated machinery of the telescope.—*Detroit Adv.*

Wood Fires.—In many a green valley of New England there are children yet; boys and girls are still to be found not quite overtaken by the march of mind. There, too, are huskings, and apple-bees, and quilting-parties, and huge old-fashioned fire-places piled with crackling walnut, flinging its rosy light over many countenances of youth, and scarcely less happy age. If it be true that, according to Cornelius Agrippa, "a wood fire doth drive away dark spirits," it is nevertheless also true that around it the simple superstitions of ancestors still love to linger; and there the half-sportful, half-serious charms of which I have spoken are oftenest resorted to. It would be altogether out of place to think of them by our black, unsightly stoves, or in the dull and dark monotony of our furnace-heated rooms. Within the circle of the light of the open fire safely might the young conjurers question destiny; for none but kindly and gentle messengers from wonder land should venture among them.—*J. G. Whittier.*

SAMUEL APPLETON.

Once at the exhibition of a menagerie, the attention of the kind-hearted old man was attracted by a crowd of boys, trying to look at the animals through the seams of the tent. "How much," he asked of the door-keeper, "will you take to let them all in?" A bargain was immediately made, and by this wholesome operation, the happiness of a hundred or more penniless boys was secured for the afternoon. With the bluff heartiness that marked his deportment, there was not only a general benevolence, but sometimes a peculiar delicacy of conduct, which showed that his natnre was marked by the finer shades of sentiment. By his will he had left a large amount of property to a favorite nephew. The nephew died, and it was represented to Mr. Appleton by his legal adviser, that, if he left his will as it was, that part of his estate would go to persons who were not at all related to him, and in whom he could be supposed to have no particular interest. Mr. Appleton, after maturely considering the matter, replied that he had concluded not to alter his will; that he believed his friends in another world knew what he was doing here; and he should be sorry to have his nephew see that the first act relating to him after his death was to divert from his nearest relations the legacy intended for him.—*North American Review.*

ESSEX COUNTY SOCIETY.

Through the polite attentions of the Hon. J. W. Proctor, of Danvers, we have the satisfaction to acknowledge the receipt of a copy of the Transactions of the Essex County Society for the year 1854. The publications by this society have ever taken a high comparative position with those of other societies in the Commonwealth, and, if we do not mistake, the present will fully sustain this character. We have not had opportunity to examine all the details. We have before spoken of the excellent instruction in the address, by Mr. Fay. The reports on the *dairy*, on *fruits*, on *vegetables*, on *swine*, on *horses*, on *milch cows*, on *sheep*, on *introduction of new plants*, on *farm*

implements, &c., appear to be elaborately and carefully drawn, containing many valuable suggestions. On poultry there is an extended paper of twelve pages, in the peculiar style of the chairman, which serves as spice for the coarser productions, on growing cabbages, making manure, &c., which are among the more congenial labors of the farmer.

We are glad to see the topics of *under-draining* and *deep tillage* are about to be taken in hand in Essex, and, with their usual vigilance applied, we cannot doubt that benefits will accrue to the farmers. We wish all parts of the Commonwealth were as fully awake to their duty as they appear to be in Essex.

For the New England Farmer.

TURNIPS FOR PIGS.

MR. EDITOR :—Have any of your correspondents had any experience in feeding pigs on turnips? Last June I found myself destitute of potatoes in consequence of the rot, with two pigs of eight weeks old, and nothing to give them except some Swedish turnips, which still remained hard and sweet in the cellar. I commenced giving them then, and, with the addition of the slops from the family, they were unusually thriving. They eat these with the greatest relish when cut up and given raw. Whether their keen appetite was induced by a somewhat short allowance previously, or from something peculiar in the kind of food, or of the animals themselves, I am not able to determine. In my not very extended experience in pig raising, I have never had them appear so well during their growing condition as these.

Reasoning on theoretical grounds, I see no reason why the turnip may not be valuable for growing pigs, as well as for growing cattle. They are easily digested, contain the necessary elements, especially nitrogen, for flesh-growing, and during the spring and early summer are in as sound a state as the potato. The important question for me to know is, whether they will relish them as well as mine have the present season. I have been in the habit, for many years, of picking off the outside leaves of cabbages and giving them to growing pigs. They will eat them with great relish, and I could never see but the cabbages headed just as well. Of course it will be understood that it is only in the growing, and not in the fatting condition, that such articles can be of any value.

As the potato is so difficult a crop with us, and the turnip of comparatively easy culture, it would be a valuable acquisition if some such substitute for the potato could be found.

Should any one have had experience of this kind, whether successful or not, I would be glad to hear from them on the subject through your paper.

In a recent article in the *Farmer* on Witch Grass, you made me say spent *tar*, instead of spent *tan*, for mulching trees. N. T. T.

Bethel, Me., Jan. 4, 1855.

REMARKS.—Again we thank our correspondent for his favor. We fed, last year, from ten to seventeen swine on a mixture of Swede and flat turnips, beets, carrots and parsnips, boiled and mixed with a small portion of cob-meal. They ate it greedily and throve well. Will others give us their experience on this subject?

Reported for the New England Farmer.

LEGISLATIVE AGRICULTURAL MEETINGS.

The first agricultural meeting of the session of 1855, was held in the Representatives' Hall at the State House, on Tuesday evening, 16th inst., at 7½ o'clock. Owing, probably, to the stormy weather, but comparatively few persons were present.

The meeting was called to order by ELIJAH E. KNOWLES, the member from Eastham, who presided during the evening.

On motion of Mr. MERRIAM, of Tewksbury, a committee of five was ordered for the purpose of nominating an Executive Committee, who shall devise a plan for the conduct of the series of meetings and attend to its execution. The Chair appointed Messrs. Brooks, of Princeton, Freeman, of Orleans, Lyman, of Southampton, Stockbridge, of Hadley, and Coombs, of Middlefield.

The committee subsequently reported for Executive Committee, Messrs. Charles L. Flint, Secretary of the Board of Agriculture, Elijah E. Knowles, of Eastham, Hiram C. Brown, of Tolland, Granville B. Hall, of Worthington, and Wm. S. King, of Roxbury,—and their report was adopted.

Mr. FLINT suggested that in the absence of any stated topic for the evening's discussion, gentlemen present from different parts of the State should give an account of the effect produced in their localities by the extraordinary drought of the past season. It had been in the line of his duty the past summer to visit almost every part of the Commonwealth, from Cape Cod to Berkshire, and he had noticed a great difference in different regions. In Nantucket, while the drought was at its height, the corn seemed to be but little affected, notwithstanding the dry, sandy nature of the soil; while, on passing from Nantucket and Martha's Vineyard to the Connecticut river valley, nothing but clouds of dust were to be seen. In his opinion such a drought had not been experienced in this State for ninety years. We need some means of guarding against these severe droughts. In England, farmers are not troubled by such unusually dry seasons. It rains there almost every other day in the year, while we do not get more than forty to sixty days of rain per annum.

Mr. MERRIAM, of Tewksbury, alluding to the exemption of Nantucket from the effects of the

drought, said that the island was about 60 miles from the mainland, was a perfect plain about 3000 acres in extent, and destitute of trees, and formerly sustained 20,000 sheep. Although it has a sandy soil, it has a humid atmosphere, being surrounded by water, the same as Great Britain is. In Middlesex county the drought had been severe. The soil is generally of a clayey composition, and in ordinary seasons is very fertile. More profit was realized last year on corn sold at 66 cents, than this year at $1.05. On interval lands pumpkins and squashes yielded about the usual amounts and the hay crop was about equal to last year. Rye was almost a complete failure, and vegetables were cut short very much. Peat and intervale lands were the only kinds that raised profitable crops.

Mr. HALL, of Bradford, said the Chairman had remarked to him in conversation before the meeting that pieces of land in his neighborhood, (Barnstable,) manured with fish did not suffer from drought, and he inferred from that that lands not so manured were affected by the drouth. He did not understand the philosophy of it, and desired an explanation.

The Chairman said that on the south side of the Cape, at Harwich for instance, they manure their lands with a shell fish called "horse feet," and they never suffer from the drought. On his side of the Cape these fish were scarce, and hence not used.

Mr. Flint remarked, as a curious historical fact, that in the drought of 1823, farms upon which fish were applied suffered exceedingly from the drought. In regard to Nantucket, he would say that farmers there make great use of the carcases of sharks, composting them, and putting them upon their land. This fact might have something to do in averting the effects of the drought on the island.

Mr. BUCKMINSTER, of Framingham, said that the moisture of the surrounding ocean had great effect in Nantucket. In his neighborhood it was found that if the soil was kept in motion, by plowing and hoeing, that it did not suffer much from the drought. On well cultivated lands the hay crop did not feel the dryness much, as indeed it did not throughout Massachusetts, owing to the good start it got before the dry season came on. He urged frequent stirring of the soil, as plowed land attracts moisture both from the atmosphere, and from beneath.

Mr. HIGGINS, of Orleans, in reference to the "fish question," remarked that the inference that *all* kinds of fish would avert the drought would not hold good. The "horse feet," were a salt shell fish, and salt will make the soil give; but any fish of an oily nature would only operate to draw the rays of the sun, and thus aggravate the effects of a drought. "Horse feet" on corn operates well, imparting some nourishment and shielding from the drought.

The Chairman said that this species of fish were proverbial as a remedy for the drought.

Mr. HIGGINS further remarked that on the south side of the Cape, in Barnstable county, farmers were at one time insane in regard to fishing their land, but they found that the use of fish only impoverished and run out the land, and they have given up the idea.

Mr. FLINT said he had labored under a misapprehension in regard to the nature of the fish applied to lands; he supposed they were all of the common oily kinds. Hence his allusion to the drought of 1823.

Mr. MERRIAM remarked upon the benefits derived from frequent stirring of the soil, and high manuring, as facilitating the absorption of carbonic acid gas from the atmosphere, an ingredient which enters largely into the composition of all plants. Plowing and manuring produce beneficial chemical changes in the soil.

Mr. STOCKBRIDGE, of Hadley, said the past season had been a remarkable one in regard to wet as well as dry weather, in the Connecticut valley. For years they had not had so wet a season. In the spring they had the greatest freshet ever known on the Connecticut; but by the middle of May it was very dry. As regards the crops in general, Hampden county falls but little short of ordinary years. At one time it was thought the corn would come short, but on alluvial lands the crop was good. Broom corn, which is a great crop in that region, never yielded so abundantly as this season. The first crop of hay was good, though not so large as in some years; the second was light. Potatoes were not much affected, and a fair crop was harvested. English wheat and rye were not materiallly injured by the dry weather; the former however, was cut off by blight and rust.

Mr. LYMAN, of Southampton, (Hampshire Co.) said that in his section the potatoe vines kept green better this season than for several years, notwithstanding the drought, and a good crop of potatoes was raised, while the quality was better than the year before, and no signs of rot were manifested. Some particular pieces suffered from the drought. A good crop of corn was gathered, and the hay crop was an average one. In feeding his hay the first part of the winter, he thought it was not so heavy as usual and that it did not spend so well, but of this he could not speak decidedly. Oats flourished well where the land was in good condition. Still the drought was very severe. He never knew so many apples to grow in that county before, but they fell from the trees early and decayed rapidly, so that growers did not realize more than usual from that crop.

Mr. Buckminster, of the *Ploughman*, related ish observations along the line of the Boston & Maine Railroad. He noticed that English cherry trees, which had been growing for ten years, were dry in the leaf in the latter part of July, and fir trees and evergreens suffered in the same way. On digging four feet deep under an evergreen, the soil was completely dry—at least felt so in the hand. He attributed these results to the dryness of the season.

Mr. Dodge, of Sutton, said that in the south part of Worcester county, those whose lands were sufficiently deep and well manured did not suffer much by the drought, and never do. So far as his experience had extended he had found that it was necessary to make the soil deep and rich. On the hilly lands of Worcester county he believed that the salvation of the crop depended on loosening the soil to a great depth. A depth of ten inches he thought would remedy the evils complained of. His soil is clayey and loamy. He thought it no harm to bring up the subsoil to the surface, and turn the other under. He never had better crops of turnips than this year. They were planted on land plowed ten inches deep—turnips and grass seed together.

Mr. Barker, of Pittsfield, said he had observed the effects of droughts for twenty years, and he had never seen one yet which would affect a good farmer. Good farmers get good crops, while poor ones never will. Farmers in his section have had good crops.

The Chairman remarked that deep plowing might answer on some lands, but not on the Cape, where nothing but sterile sand would be turned up by deep plowing.

Mr. Hall, of Bradford, said he visited a nursery in New Bedford last summer, and found the young trees, particularly the pears, in a remarkably thrifty state, large and vigorous. He asked the proprietors if they did net manure highly, and was told that they did not; but instead, double trenched all their ground. It is an expensive process, costing $200 per acre. A few weeks since he again saw one of the proprietors of the nursery, and inquired about the drought in his vicinity. He said it was very severe, but he could not perceive that it had injured his nursery much if any. Mr. Hall also related another fact tending to demonstrate the value of stirring the soil for facilitating and preserving vegetation.

At the close of Mr. Hall's remarks (9¼ o'clock) the meeting adjourned.

U. S. Agricultural Society.—The Third Annual Meeting of the United States Agricultural Society will be held at Washington, D. C., on Wednesday, February 28, 1855. Business of importance will come before the meeting. A new election of officers is to be made, in which it is desirable that every State and Territory should be represented. Lectures and interesting discuesions are expected on subjects pertaining to the objects of the Acsociation, by distinguished scientific and practical Agriculturists.

The various Agricultural Societies of the country are respectfully requested to send delegates to this meeting; and all gentlemen who are interested in the welfare of American Agriculture, who would promote a more cordial spirit of intercourse between the different sections of our land, and who would elevate this most important pursuit to a position of greater usefulness and honor, are also invited to be present on this occasion.

Marshall P. Wilder, *President.*

For the New England Farmer.

RELATIVE VALUE OF FOOD.

In the *New England Farmer* of Jan. 13, I find an article copied from *The Plow, The Loom, and The Anvil*, on the subject of Root Crops. The article is, in the main, what every judicious farmer will approve; yet there are some indications of that *ultraism* which is the bane of all practical farming. Among other objectionable sentences I cannot help noting the following:—"The more diluted our food, provided we do not overtask the energies of the intestinal canal in the conveyance of it to its destination, the better for the health of the animal."

Now this means, if it means anything, that, the less concentrated the food of animals,—that is, the greater the proportion of bulk to nutriment,—the "better for the health of the animal." The writer does not seem to perceive that, in carrying out this doctrine, he must inevitably run it "into the ground;" for it comes to this, that, when food is discovered which contains no nutriment at all, it is better adapted than any other for sustaining animal life! We have all heard of people who lived on "faith and dumplings," and all agree that it is pretty hard feed; but our writer on "Root Crops" would give us *all* faith and *no* dumplings. It may be good doctrine to die by, but assuredly it is a hard one to live upon. The chameleon, fabled to diet upon the "circumambient air," would be a model animal to carry out such a principle.

It is argued by all writers on animal economy, (except perhaps the one here referred to,) that proper food for man as well as beast requires bulk as well as nutriment. A horse fed entirely on concentrated food, like Indian corn, will gnaw the manger in order to obtain the bulk of fibrous wood which nature requires; and if he cannot procure it, he will sicken and die. The Hindoos, it is said, who feed mainly on rice, which is the most highly concentrated form of food, (containing about 95 per cent. of nutriment,) will sometimes eat dry grass or splinters of wood. There can be no doubt that bulk as well as nutriment is required in order to sustain the animal functions; but *all* bulk and *no* nutriment must be quite as prejudicial as all nutriment and no bulk. The only real truth to be sought is the proper proportion.

The late Dr. Sylvester Graham, who, with all his ultraisms, had some very good ideas, and was well read in everything relating to physiology, was of opinion that wheat, rye or corn, ground

without bolting, constituted about the proper proportion for the human stomach. This is about 60 per cent. of nutriment to 40 per cent. of bulk. He was also of opinion that about 20 per cent. of nutriment was the proper proportion for domestic animals, like the cow and the horse. Good English hay contains about ten per cent. of nutritious matter, and, of course, according to his theory, something more highly concentrated is required in order to develop the perfect animal. A moderate quantity of grain, ground and mixed in the form of "cut feed," has, in the experience of all growers of stock, been found best adapted to animal health and physical development.

This principle, or theory, does not tell well for the opinion of the writer referred to as regards the value of the English or flat turnip as a food for animals. That vegetable contains about 90 per cent. of water, and of the remaining ten per cent. more than half is woody fibre. Only about four per cent. of the turnip is nutrition. The potato, on the other hand, when divested of its eighty-five per cent. of water, is nearly all nutriment—or very nearly fifteen per cent. It is nearly four times as nutritious as the turnip, pound for pound. I would by no means discourage the raising of turnips, for the seed can be sown when it is too late to plant any other, and of course where no other crop can be raised for the season. They are useful and healthful to a degree, although they impart a disagreeable flavor to milk, and should not be fed to milch cows except in very small quantities at a time. No grounds capable of producing other crops, should be reserved for the flat turnip; but grounds from which early crops are harvested may be profitably devoted to this crop. In some seasons the turnip will grow well if sown as late as the twentieth of August, or even the first of September; and as the seed is easily raised, farmers and gardeners will lose nothing in scattering it, not too thickly, over grounds harvested up to those periods. But the turnip crop never ought to interfere with any other.

Neither do I agree with the same writer that the carrot is the most nutritious of all root crops. I think it will be found on analysis that the common turnip beet is more nutritious than the carrot—the saccharine matter in the former being entirely nutritious. This beet is also much better for milch cows, as the carroty flavor of milk is almost as bad as the turnip flavor. For horses, during the winter, the carrot is undoubtedly the best of all root crops, and for their use it should be freely cultivated. E. C. P.

Somerville.

For the New England Farmer.

MEASUREMENT OF CROPS.

Mr. Brown:—I would suggest to those interested, through the columns of your paper, the propriety of the adoption of a uniform rule for the measurement of crops for premium throughout the State. I am led to do this by the dissatisfaction manifested by many in relation to the rule adopted by the Plymouth County Agricultural Society in the measurement of corn for premium. By this rule, as is well known, an average square rod is selected while the corn is in the field, the product weighed, and by which the whole is estimated. Under this rule enormous crops of corn have been produced; for instance, a gentleman in this town last year raised 155 bushels to the acre, and this year upwards of 100 bushels of corn to the acre, I think, have been raised in the county. If this rule is the best, let it be adopted throughout the State; if not, let some other, for, as it is now, there is reason to believe some persons receive more credit for raising large crops than others simply by the measurement. Howard.

West Bridgewater, Mass.

WIRE FENCE.

The following letter from Hon. Marshall P. Wilder, President of the United States Agricultural Society, refers to the wire fence described and portrayed on our first page.

Dorchester, Jan. 15th. 1855.

Charles Crowley, Esq., Agent, &c.:—Dear Sir,—I have recently examined some of the netting of the Lowell Wire Fence Company for fences, trellises, etc. From my own experience and that of others, I cannot doubt that it is perfectly practicable as a fence for fields and gardens, or that it is well adapted to all uses where a strong, close, elegant, economical and durable fence is required. Where stone is not abundant, or where lumber is expensive, as in many of our States, I should deem it the most practicable fence that could be procured. If our railroads are hereafter to be enclosed, as safety and economy demand—they can scarcely be fenced cheaper or better than by this mode of fence. The stouter kinds of this netting are of such strength, that cattle could not easily penetrate or pass it; while the closeness of the lighter kinds, renders them admirably available for garden uses, heneries, and poultry fences. Fencing like this, has for some years been extensively used in Great Britain; and, since it can now be made at a much less cost, by machinery, it would seem to be equally adaptive to the United States. I know of no fencing so good as this, that can be procured for $1,50 per rod, the highest price asked for the most costly kinds of this netting; and this is, probably, the only fencing of equal merit that can be bought for $1,50 per rod.

As a material for rose-trellises, grape-trellises, and ornamental work in gardens, I think it unequalled in cheapness, durability and beauty, by anything yet devised. It will, without doubt, eventually be received into general use, when its merits are appreciated by the public. Yours respectfully,

Marshall P. Wilder.

For the New England Farmer.

NATIVE CATTLE.

Mr. Editor:—In the number for January of the *Journal of New York State Agricultural Society*, is the following testimony, that may be instructive to those who are not willing to admit that cattle, which are generally termed *native*, are of any value.

Mr. T. Wells, from Chenango county, under date of Dec. 16, 1854, writes: "I doubt very much whether there has ever been any better breed of cattle, either for beef or milking, than the native red cattle. It is *keeping* that makes the cattle." Mr. Thompson, President of the Yates County Society, writes to B. P. Johnson, Secretary of the State Society: "Some attention

is paid to the breeding of Durhams and Herefords, but *native Americans* are most in favor for the dairy."

Perhaps it will be said the men who write thus are of the *Know-Nothing* order; but if they are, I think they are in a fair way to be of the majority. So say those of my acquaintance whose judgment is most worthy of confidence.

Please oblige your readers by giving this a place in your *Yankee Journal*.

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Jan. 15, 1855.

For the New England Farmer.

LETTER FROM MR. FRENCH.

A GLANCE AT WASHINGTON CITY MARKET.

The principal market of the city of Washington is upon Pennsylvania Avenue. The buildings consist of a large extent of low one-story brick and wooden white-washed structures, of no particular order of architecture, which, were it not disrespectful, might be described as *sheds* better than by any other words. These are divided into stalls, and are rented to the market-men. But the sales are by no means confined to these buildings. All around, on, and about the adjacent sidewalks and squares, on market mornings, three times a week usually, is a throng of sellers, principally blacks, in ludicrous variety of appearance and employment. Backed against the curb-stone are long rows of market carts and wagons, of all conceivable shapes. Here is a tolerable looking horse-cart, with a mule attached, having his mane sheared and his tale also, except a tuft of hair at the end, to gratify the freakish taste of his negro driver. There is a market wagon, of large size, with three or four hoops bent over it, and a large cotton covering, to shelter the half-dozen darkies who have come into the city in it, and who are now pursuing their separate duties of selling little commodities about the market. Many of these wagons, loaded with grain, vegetables, poultry and other eatables, come to their places during the night, or previous evening, so as to get good stands, which are appropriated by the first comer.

Squatting down upon the pavement, on all sides, are numerous old colored women, with little stores of fruit, eggs and the like, advertising their wares by word of mouth to the passers-by. *There* are three or four singular-looking animals, bearing some resemblance to small pigs, which a small nigger introduces to your notice by the question, "Have a *possum*, massa?" There again is an old lady, who has bunches of the smallest kind of little birds, of the size of robins, dressed ready to cook; and there another, with a coop of small live chickens, not of much larger size, which are sold at some twenty-five cents each, to be forthwith served up at the hotels for dainty morsels of food.

And under that wagon is a live pig, tied by one foot, looking as if he might have a year's experience with about two months growth, designed for immediate slaughter, or to be kept a few months longer, as the purchaser may think proper. A half-dozen living calves, of a few weeks' age, are lying, tied neck and heels, gasping for breath, on the hard pavement, and not far off as many cows, of all colors and shapes, for sale. Most of them are poor in flesh, though with marks of good qualities as milkers. Turkeys are sold, not by the pound, as with us, but at so much apiece, at prices not very different from those of Boston. I find good practice for all the knowledge of fractions which I derived from the arithmetic in my school-days. On my inquiring the price of potatoes, I received the edifying reply, "three fips for a quarter of a peck." A fip being six and a quarter cents, you have the basis for a calculation how much potatoes were sold at per bushel. That, however, was the highest retail price, the price by the bushel being from one and a half to two dollars.

I was quite shocked to see, exposed for sale, like vulgar ducks and geese, beautiful *swans*, killed for food! Heretofore, I had regarded these stately creatures as intended solely to gratify our love for the beautiful; but alas! this utilitarian age pays little homage to that beauty which is not at the same time profitable. A common and excellent cheap article of food is exposed in abundance, cooked ready for the table, which they call hominy, and which ought to be used at the north. It is made of white corn, merely cracked and hulled, and boiled soft, and forms the best substitute for potatoes. It is eaten with meat, like the common garden vegetables with us. No yellow corn is used here for food, and little or no rye and Indian bread, such as is common with us. The market is abundantly supplied with game of all kinds, ducks, venison, quails and the like, and with finer mutton than is often found in Boston. Prices of provisions and every thing are arranged upon the principle that every office-holder shall spend his salary, more or less. Public opinion seems to demand this, and houses are constructed to meet this idea. There is no such thing as a cellar under one house in a hundred, so that provisions cannot be laid in for a winter, as with us, but the market-basket must go down three or four times a week, for a half peck of potatoes and a dozen apples, and a cabbage and three or four turnips, and so on, requiring as much time as the whole would be worth in our northern villages. Most of the pork sold here is of small size, of pigs weighing about a hundred pounds. Aside from the lard and middlings, animals of this size make much better food than the full-grown, over-fatted hogs of the northern

markets. The idea is gaining ground in New England, I think, that there is more profit in killing our swine, at a year old, than in keeping them over an entire winter. Here, however, the dead bodies of these quadrupeds indicate that their sphere of action was not limited to a sty merely, but that a good long set of legs and a nose to match, were essential to their style of life.

One fact impresses all who come here from the north, that in every thing pertaining to agriculture, there is wanting the system, and neatness and energy, which educated free labor alone can develope.

I am expecting to visit the farm of a friend near the city soon, and will give in my next some idea of how a New England man cultivates a southern farm. H. F. F.

Washington, D. C., Jan. 8, 1855.

For the New England Farmer.

PEALING THE BASKET WILLOW.

Mr. Brown:—I have lately witnessed the trial of a machine, invented by George J. Colby, of Jonesville, Vt., for peeling the *basket willow*, which is destined to become of great importance in this country. It does the work in the most perfect manner, is operated by one horse-power, and with two men, will peel one ton per day.

It has been fully proved, within a few years, that the European Osier will thrive as well in this as in the old country, and those cultivated here are sought after by the manufacturer in preference to the imported. There are annually imported to the United States over *five millions dollars* worth, besides the manufactured article, which amount is very large, all of which might be cultivated in this country to great advantage.

The only objection to the cultivation of the willow in this country, has been the scarcity of labor required to peel it for market, as it must be done in the spring, during the short period that the bark will strip, and in many localities the required labor cannot be had. The estimated cost for peeling by hand, is about $40 per ton. That objection is now removed by the invention of a machine for the purpose. I doubt if there is any business that will yield the husbandman as large a profit as the cultivation of the *willow*, by those who have suitable soils. It will thrive well on most of our soils, or any that are rich and moist, or what is termed good grass land; but that is best adapted which is natural to our native willow, and will yield an average of two tons per acre. The present price for the willow is 6 cents per pound, with an increasing demand, and much larger than the supply.

The best willow for cultivation of which I am acquainted, is the *Salix viminalis;* it grows in this locality from eight to ten feet high, is very smooth, free from knots, and never branches. There are other varieties that are valuable for hedges, or live fences, which will yield an annual profit for Osiers. J. R. Jewell.

Bolton, Dec., 1854.

FORGIVE AND FORGET.

BY THE AUTHOR OF "PROVERBIAL PHILOSOPHY."

When streams of unkindness as bitter as gall,
Bubble up from the heart to the tongue,
And meekness rising in torment and thrall,
By the hand of Ingratitude wrung—
In the heart of injustice, unwept and unfair,
While the anguish is festering yet,
None, none but an angel of God can declare
"I can forgive and forget."

But if the bad spirit is chased from the heart,
And the lips are in penitence steeped,
With the wrong so repented the wrath will depart,
Though scorn on injustice were heaped;
For the best compensation is paid for all ill,
When the cheek with contrition is wet,
And every one feels it is probable still,
At once to forget and forgive.

To forget? It is hard for a man with a mind,
However his heart may forgive,
To blot out all perils and dangers behind,
And but for the future to live;
Then how shall it be? for at every turn
Recollection the spirit will fret,
And the ashes of injury smoulder and burn,
Though we strive to forgive and forget.

O, hearken! my tongue shall the riddle unseal,
And mind shall be partner with heart,
While thee to thyself I bid conscience reveal,
And show thee how evil thou art;
Remember thy follies, thy sins and thy crimes—
How vast is that infinite debt!
Yet Mercy hath seven by seventy times
Been swift to forgive and forget.

Brood not on insults or injuries old,
For thou art injurious too—
Count not the sum till the total is told,
For thou art unkind and untrue;
And if thy harms are forgotten, forgiven,
Now mercy with justice is met;
O, who wouldn't gladly take lessons of Heaven—
Not learn to forgive and forget?

Yes, yes, let a man when his enemy weeps,
Be quick to receive him as friend;
For thus on his head in kindness he heaps
Hot coals—to refine and amend;
And hearts that are Christian more eagerly yearn
Over lips that, once bitter, to penitence turn,
And whisper, "forgive and forget."

For the New England Farmer.

MACHINE FOR CHOPPING BRUSH.

Messrs. Editors:—In passing through Methuen, a few weeks since, I had occasion to call on Col. Charles E. Stanley, of that town, when I was shown by that gentleman a machine, or rather, cutter, belonging to him, to which horse-power is applied, for the purpose of cutting limbs and brush at the door. It is called "Daniel's patent" of Vermont, being very much on the principle of some hay-cutters, only on a much larger scale. Two huge knives, about eighteen inches long, one-half inch thick, and four and a half in width, are strongly fastened on the shaft roll. A good feed roll is also applied. Hard wood limbs, without trimming, that are not more than three inches, or pine, that are not more than four and one-half inches through at the butt, are cut with ease. By changing the gearing, they can be cut any length desired, from four and one-half to one-fourth of an inch in

length. When green pine limbs are cut two inches long and spread upon a floor not more than ten inches in depth, they will dry so as to burn well in a week.

Col. Stanley says he can cut limbs and brush to the above degree of fineness faster than a smart man, with a good yoke of oxen, can haul and dump them from one-fourth of a mile distant. The advantage of cutting it so fine is, that it brings much scraggy and otherwise worthless brush, up to more than the value of its weight in solid wood, which, in these times of scarcity and high prices of fuel, is an object of too much importance to be overlooked. Colonel Stanley's neighbors bring brush to him to be cut on equal shares. As near as I could judge, this machine will do the work of forty men.

The reason that the chips dry so quick, is, that they are not cut square off, but obliquely, one side being concave and the other convex; consequently they are shattered to such a degree, that the air is admitted entirely through them, and the drying process immediately commences.

Danvers, Jan. 16, 1855. *******

"IDLEWILD."

From an interesting letter which appeared in the columns of the *Rochester Advertiser*, we condense a brief description of Idlewild, the garden home of N. P. Willis. It is situated on the western bank of the Hudson river, a few miles south of the town of Newburgh. In its immediate vicinity are many beautiful country seats, including among others those of J. T. Headley, the artist Durand, and the late lamented Downing, all of which are adorned by the rarest embellishments of art. But Idlewild, situated amid the most lively scenery of the valley of the Hudson river, is the most beautiful country seat in the region. The domain comprises about one hundred acres of land, which, when they came into the possession of Willis, were clothed in a dense black forest of cedars, firs and pines, and other mountain trees, as wild and thick as when the Indian war-hoop echoed through their shades. The grounds possess a great variety of surface, scene and prospect, and the fine taste of Willis has seized upon every opportunity to enhance the charms which nature has grouped in such harmonious contrast.

Running diagonally through the estate is a broad, deep glen, over whose rocky bottom flows a clear cold stream of water. Willis, by means of jutting rocks and artificial dams, has broken this stream into singing cascades and murmuring waterfalls. In one place he has lured a portion of the waters from their channel, to fill a pond for his gold fish. In another he has taken half the stream to form the shooting jets of a fountain; and still further down the glen he has checked its flow and swollen it into a miniature lake for his little boat. At several points along the stream he has thrown rustic bridges from bank to bank. The view from the lower extremity of the glen upward, through the deep vista of trees joining their branches over my head, is said to be very beautiful. It resembles a vaulted cathedral; and the imaginative eye may behold in the large brown stones, with their mossy sides, which are scattered in picturesque confusion throughout the scene, gray, cowled monks, counting their beads for vesper prayers. The ground is intersected in almost every practicable direction by carriage roads, and narrow footpaths wind around the sides of the steep cliffs, amid thickets of cedars and pines, clumps of fir and weeping larches, and solitary old oaks, the majestic monarchs of the forest.

The house is situated on a high point, commanding a view of the noble Hudson on the east, the magnificent scenery of the Highlands on the south, and on the north and west a thick mass of trees, streams, and ruined hamlet cottages. It is built in the Englisb villa style, with piazzas and deep bay windows facing the river, and abounds in gable roofs, with oriole and dormer windows jutting out, and clustering chimneys terminating the pinnacles. The interior is adorned with rare curiosities, collected in Europe and America—paintings of distinguished personages, landscapes of beautiful scenery, marbles, bronzes, medals, statuary, and engravings in rich profusion.

This is Idlewild.

SERF LABOR IN POLAND.

In every village is an overseer, whose duty it is to call in the evening at each hut, and notify the inmates as to the part of the plantation where they are to meet the following morning, and be ready to start for work. Men, women and children are included in this order, of course; they assemble as directed, and are then driven like so many oxen to their labor. Of whatever kind the work may be, the women are obliged to toil as the men; the children are assigned lighter tasks, such as picking stones, &c. Over each division is placed an overseer, having in his hand a whip of braided strips of leather, and should any one presume to stop even for a moment, the lash is unmercifully applied; children are not exempt from this infliction, and whoever may be the object of punishment, he or she, is obliged to kiss the hand or foot of the inflictor. Should any one refuse to do so, as is sometimes the case, the poor creature is laid upon the ground, and receives forty additional stripes, then with blood trickling from his back returns again to work. In some instances (the overseer being in an unusual passion,) children, perhaps a son or a daughter, are required to hold down a parent, whilst another member of the same family is made to administer the lash with his utmost strength. These things seem heart-sickening to relate, nevertheless they are true, and not a day passes without many individuals being subjected to such treatment. When they leave their miserable homes in the morning, each peasant carries upon his back a coarse cloth sack, containing the dinner of its bearer; this consists of a loaf of brown bread, having the appearance of baked sawdust; and if the bearer has been so fortunate as to have recently killed a pig, he takes with his bread a piece of raw pork. Before commencing work, these sacks are deposited in heaps upon the ground, and at noon, when the signal is given, they rush with the speed of half-starved animals, every one for his bag, and then commences a devouring of bread and salt in the most ravenous manner. Each gang is allowed a mug of water, and this is passed from one to another until all have been served. Such is the manner in which

these poor creatures toil on through their period of existence, without a ray of hope to cheer, or a single solace to alleviate their woes.—*Allen's Autocrasy of Poland and Russia.*

FARMERS' CLUBS.

We find the following excellent article in our exchanges, and wish we could give the writer credit for performing so good a deed, as that of writing it, but there is nothing attached to it by which we may know its paternity.

"We do not mean Herculean clubs, nor goad sticks, to quicken the pace of Buck to keep up with Bright. We mean no such un-farmer-like expedient to quicken the pace or sharpen the intellect. It is the farmers' social club for mental and agricultural improvement that we have in our mind's eye, and about which we propose to stir up the thoughts of farmers, 'by way of remembrance.' Old soldiers love to fight their battles o'er again, and old men like to discourse of what occurred in the days of their youth. Long time ago we remember attending a meeting of farmers' boys for amusement and instruction when the merry sentiment went round the ring, with the action suited to the word—

"Thus the Farmer sows his peas,
And thus he stands and takes his ease;
But you nor I, nor no one knows
How oats, peas, beans and barley grows."

It was an ancient farmers' club in miniature, and we know what lad it was of the number who married the district 'school-mar'm,' and in after life was sure to get a premium at the cattle show for the best butter, and won the reputation of being the best farmer in the county. It was the son of a Scotchman, who was always first and foremost at the juvenile meeting, when amusement was always blended with instruction. Those meetings taught us the useful lesson, that a little often shows what a good deal means. While the scholars in our county districts are profitably spending a winter's evening at the spelling school, would it not be well for their fathers to assemble in some convenient place, and in a free and familiar manner, 'tell their experience' in farming, and communicate to each other how they manage to raise the best stock, and enter into all the minutiæ and variety of good husbandry? It seems to us that much useful information would be elicited, and that each and all would derive very great benefit from participating in so pleasant and profitable a discussion. Such farmers' clubs are held weekly in many of the school districts of Massachusetts, Maine and New Hampshire—why should they not be held in every town and district in Vermont? Can any one assign a good and sufficient reason why such meetings of the 'lords of the soil,' for mutual improvement, and for discussing the great and paramount question, what shall be done to promote agriculture, may not be as pleasant and profitable in Vermont as they are in other States? Questions given out at one meeting and discussed at the next, will elicit thoughts and important facts, excite a laudable ambition to excel in word and in deed, in theory and in practice. Merchants, mechanics and manufacturers hold such meetings, and why should not nature's noblemen do the same and share the rich reward? 'Can any one man working alone on his farm, learn as much as one hundred men?' May not each discover some practical and important fact, and should not his neighbors know it! Let farmers hold such meetings and take their sons and workmen with them. 'A farmer must have been slothful indeed, if, during the past year, he has not learned *one* new fact in relation to agriculture; and should a hundred neighbors meet, then each will learn ninety-nine new facts for one communication. Pretty good interest, surely; and what is better, the givers and the receivers each get their pay down. What farmer that deserves the noble name, ever attended such a meeting without learning something new, practical and useful?"

ADVICE TO CONSUMPTIVES.

Eat all you can digest and exercise a great deal in the open air, to convert what you eat into pure healthful blood. Do not be afraid of out-door air, day or night. Do not be afraid of sudden changes of weather; *let no change, hot or cold, keep you in doors.* If it is rainy weather, the more need for your going out, because you eat as much on a rainy day as on a clear day, and if you exercise less, that much more remains in the system of what ought to be thrown off by exercise, and some ill result, come consequent symptom, or ill feeling, is the certain issue. If it is cold out of doors, do not muffle your eyes, mouth and nose, in furs, veils, woolen comforters, and the like; nature has supplied you with the best muffler, with the best inhaling regulator, that is, two lips; shut them before you step out of a warm room into the cold air, and keep them shut until you have walked briskly a few rods and quickened the circulation a little; walk fast enough to keep off a feeling of chilliness, and taking cold will be impossible. What are the facts of the case? look at the railroad conductors, going out of a hot air into the piercing cold of winter and in again every five or ten minutes, and yet they do not take cold oftener than others; you will scarcely find a consumptive man in a thousand of them. It is wonderful how afraid consumptive people are of fresh air, the very thing that would cure them, the only obstacle to a cure being that they do not get enough of it; and yet what infinite pains they take to avoid breathing it, especially if it is cold; when it is known that the colder the air is the purer it must be, yet if people cannot get to a hot climate, they will make an artificial one, and imprison themselves for a whole winter in a warm room, with a temperature not varying ten degrees in six months; all such people die, and yet we follow in their footsteps. If I were seriously ill of consumption, I would live out of doors day and night, except it was raining or mid-winter, then I would sleep in an unplastered log-house. My consumptive friend, you want air, not physic; you want pure air, not medicated air; you want nutrition, such as plenty of meat and bread will give, and they alone; physic has no nutriment, gaspings for air cannot cure you; monkey capers in a gymnasium cannot cure you, and stimulants cannot cure you. If you want to get well, go in for beef and out-door air, and do not be deluded

into the grave by newspaper advertisements, and unfindable certifiers.—*Dr. Hall.*

TRANSACTIONS OF THE NEW YORK AGRICULTURAL SOCIETY.

Through the polite attention of the Secretary, B. P. JOHNSON, Esq., we have before us the Transactions of this Society, for the year 1853. It is enlarged and printed in a style deserving much praise. In its paper, typographical execution, illustrations and binding, it surpasses its predecessors, showing that the arts connected with book-making are improving, *pari passu*, with the science and art of agriculture. Massachusetts must look well to her laurels in these respects.

This fine volume of 780 pages is filled with varied and valuable information, showing not only the actual state of agriculture at the present time, and the advance that has been made on the past, but also a steady purpose to incorporate into the mass of knowledge available to the cultivators of the State, the discoveries in science and art, that are made in other countries and climates.

The first thing we notice is a copious and well-arranged index, adding much to the value of the volume.

We next, have Mr. Secretary JOHNSON's report to the legislature, showing briefly what has been accomplished, and making important suggestions for the future.

We then have the address of WILLIAM C. RIVES, of Virginia, delivered at Saratoga in 1853. This address contains some broad national views of the paramount influence of agriculture to this country. Then follows a highly valuable lecture upon *flax*, delivered at the same place, by JOHN WILSON, of Edinburgh. This is a subject of great importance to this country, especially when considered in connection with the improved methods of preparing the fibre for the use of the manufacturer. The statistics of the flax industry which MR. WILSON presents are of a startling character to one wholly unacquainted with the subject. Great Britain is paying annually twenty-five millions of dollars for the flax and hemp which she manufactures, and *seven and a half millions for flax-seed*, and *two-and-a-half millions for linseed cake*, and requires 600,000 acres to produce the supply which she needs, while her demand is annually increasing. One million, sixty-eight thousand, six hundred and ninety-three spindles are employed in the United Kingdom in spinning linen, and six hundred and forty thousand in other countries.

In 1850, Great Britain manufactured 110,000,000 yards of linen. In 1852 she exported linen goods to the amount of about $26,784,355, fifteen millions of which came to the United States. These statistics are of the most suggestive character. Why should not the United States at least supply the raw material sufficient to furnish the quantity in a manufactured state which she demands for her own consumption?

The committee upon flax and its culture state that there is in the State about 8,000 acres under flax culture, yielding about $15 profit per acre, over the expense of cultivation.

Mr. WILSON's lecture is followed by a condensed description of the characteristic and distinctive points of several of the breeds of imported stock. The next subject of importance is the report on *farm implements*. We have not space for the remarks we should be glad to make on this subject. Yankee inventors must look to their laurels in this matter, or the New Yorkers will bear away the crown. The next report is upon *cooking-stoves* and *furnaces*, showing the wide range of observation taken by the Society.

Then we have descriptions of *thirty-five* new varieties of *Pears*, by a nursery firm at Rochester. We cannot but admire the perseverance of nursery-men in producing new varieties of this delicious fruit. We have sometimes admired their ingenuity also, in pointing out distinctions where but the shade of a shadow of difference existed. We should be glad to know how many and which among the varieties of pears already produced, are really valuable and worth cultivation. Professor WILSON appears before us again in the next article, and gives us an account of the *sugar-beet*, and various statistics from Continental Europe relating to the subject.

The *salt manufacture* is one of great importance in the State of New York. The production has increased in little more than fifty years from 25,000 bushels, to about *five-and-a-half millions* This business the Agricultnral Society has taken under its fostering care.

The next article of general interest relates to a species of *weevil*, the *Ithycerus Noveboracensis*, an insect that has committed extensive ravages upon fruit and forest trees in various parts of the Northern States, from Dr. FITCH, of Salem, N. Y., and Dr. HARRIS, of Cambridge, Massachusetts, with some remarks upon the *Palmer worm*, by Dr. HARRIS.

Then comes the account of the *annual meeting* of the State Agricultural Society, with the reports of the several committees. Many of these reports are upon subjects of the highest importance to the farmer. Several of them were prepared with great care and labor, and contain facts and suggestions of much interest. An article upon the origin, culture and uses of *Indian corn*, will amply repay the careful attention, not only of the cultivator, but of every housewife in the country.

The *Treasurer's account* shows that the receipts of the Society, for 1853, were $12,684, and that after paying current expenses, premiums, &c., they have a balance of $802,00 to carry to next year's account.

The remainder of the volume is occupied with *abstracts of the reports* of the several county societies, and extracts from the addresses delivered at their annual meetings, thus bringing before us the condition and doings of the several counties in one connected view. We wish we had space to make copious extracts from several of the county reports;—but we can only commend them to all who are so fortunate as to obtain the volume. The only thing which we especially regret in the volume is the absence of the labors of Dr. Salisbury. We trust the managers of the Society do not consider that there is no more occasion for his analytical services. The good which he has so ably commenced, should, under their auspices, be carried forward unto perfection.

GIFFORD MORGAN COLT, VERMONT.

This engraving represents the four years old *Gifford Morgan Colt*, exhibited at the Vermont State Fair at Brattleboro', September, 1854, and received the first premium of $15, in the class of Woodbury Morgans, from four to seven years old horses.

He is a very dark chestnut color, and is a descendant of the old Gifford and Green Mountain Morgans, and is claimed on the part of his owners to be the most thorough-bred Morgan now living of his age. He is a colt of great action, and is considered a very characteristic and favorable specimen of the breed, in all particulars. His last year's colts bear a strong resemblance to the old Morgan family. He is owned by J. H. Peters & Co., Bradford, Orange County, Vt.

For all uses, the farm, the road-team, or the carriage, we do not believe the Morgans, as a breed, are excelled by any other. Their carriage is frequently lofty, and often very graceful. Their temper is docile, so that boys and women may easily manage them when well broken, and their powers of endurance, even as roadsters, almost beyond belief. We scarcely can look upon one of the best of his type without a sort of fascination.

PHOTOGRAPHIC COUNTERFEITING.

A Cincinnati gentleman writes to the *New York Tribune*, describing the results of some experiments which have been made in that city, by Mr. Fontayne, a daguerreotypist, relative to the art of photographic counterfeiting. The counterfeit notes, he says, manufactured in this manner, far surpass in the perfection of their details any thing of the kind which has ever been done by the old method of engraving. Every line and every speck is accurately copied, so that when the photographs are taken upon the proper bank note paper, they defy detection, either by the unaided eye or by the microscope. A number of bills, copied in this way by Mr. Fontayne, were presented at various banks in the city of Cincinnati, and in every case they were pronounced, after careful inspection, to be genuine.

By this newly-discovered system of photography, all kinds of ordinary writing or printing

may be copied—checks, notes, autographs or letters. The only safeguard to the public in respect to bank bills, seems to lie in the fact that bright red, blue or green colors, cannot be imitated by the photographic process, and that bills which are partially printed in these colors, are consequently secure from the possibility of counterfeiting. Bills counterfeited by the photographic method, may always be detected by wetting them with a solution of corrosive sublimate or of hydriodate of potassium—the liquid immediately turning the photographic picture white. This test, however, would prove but a poor safeguard to the public generally.

Reported for the New England Farmer.

LEGISLATIVE AGRICULTURAL MEETINGS.

The second meeting of the series was held at the State House, on Tuesday evening, 23d inst. There was a good attendance. The meeting was called to order by Mr. KNOWLES, of Eastham, and Mr. E. W. BULL, of Concord, was invited to occupy the chair.

Mr. Bull opened the discussion by some remarks upon the cultivation of the small grains. Massachusetts, he said, pays annually $10,000,000 for flour. Yet if her soil was properly cultivated, she could sustain a population equal to twice the present; and, in view of the present high price of breadstuffs, the cultivation of the cereal grains is of more than usual importance. Rye, perhaps, is the grain which is, on the whole, best adapted to our sandy soils and dry seasons. He had tried guano in raising it, on a piece of dry, sandy land, which had not been manured for ten years probably, being in grass all the while, of which hardly enough was cut to pay for the trouble. The land was plowed in September to a good depth, and two hundred weight of guano to the acre harrowed in on the furrow, after which five pecks of seed to the acre were sown, which produced a good stand of plants, the season being favorable. The amount of seed was too much, however, for when harvest-time came, the grass-seed sown with it was smothered. In the spring, 50 lbs. additional of guano was sowed on one-half of the acre, while on the other half none was applied. The difference in the yield of the two half acres, was only one bushel in favor of the extra manuring, from which he concluded that manuring beyond 200 lbs. to the acre with guano for rye, was not profitable. One-half of the rye was cut the first week in July, and was found to be much whiter and better than the rest, which was cut a week later. In England, it is the practice of farmers to cut their rye as soon as the stem is yellow under the ear, and by so doing the flour is much whiter. His experience confirmed the utility of the practice.

The subject of cereal grains was adopted for the evening.

Mr. KNOWLES, of Eastham, said that formerly rye was not considered to be worth more than half as much as it now commands in the market. At present prices, he considered it as profitable as any crop our fathers could raise. As to raising wheat, but little has been done on the Cape except at Orleans, where it has not been attended with much success, owing, perhaps, to inexperience. Either rye or barley, however, is profitable. The trouble with rye has been in sowing it broadcast, and not harrowing in deep enough. He thought it would leave the land in as good condition as any crop.

Mr. JENKINS, of Andover, said, in relation to raising grain alone, he did not know how it could be made profitable in the eastern part of Massachusetts; but thought that, in connection with English grass, it could be made remunerative. It is a mistake to attempt to raise grain and grass together on dry, sandy land. Most farmers in this part of the State have some very wet as well as very dry soils on their farms, and their policy should be to gravel the wet land and manure it well, for the raising of grass, constantly reserving the dry land for grain, which will not need so much manure.

Mr. FREEMAN, of Orleans, did not think wheat could be raised profitably on the Cape, even if the land was manured highly, and he believed that was the general opinion there. Although wheat was once raised successfully there, it cannot be done now. There was some property existing in the soil then which it does not possess now. He had seen corn taken off of land and wheat put on, but it would not grow—while grass, following corn in the same way, flourished vigorously, showing that there was something wanting for the wheat. There was no difference in this result between winter and spring wheat.

The Chairman remarked that Mr. BROWN, of Concord, who had raised fine crops of wheat, had made use of lime to the extent of 15 bushels to the acre, sown broadcast, and perhaps to this manure his good crops were attributable.

Mr. HOWARD, of the *Boston Cultivator*, said it was formerly supposed that a good deal of lime was necessary to secure a good crop of wheat; but Mr. Emmons, the State geologist of New York, after analyzing the soils of all parts of the State, found that the lands of the best wheat-growing counties contained the least lime. In Seneca county, at present the greatest wheat county in the State, only one-half per cent. of the ingredients of the soil is lime. He mentioned this to show that the utility of lime for raising wheat was doubtful.

Mr. BRADBURY, of Newton, said that in the

wheat-growing counties of Pennsylvania and Maryland, great quantities of lime were used, and it was considered indispensable. They formerly raised large crops of wheat without any manure; but their lands gave out, and geologists advised the farmers to replenish their lands with lime. They did so, and the result was that they obtained as good crops as they ever did. In some of these counties there is plenty of limestone, from which the farmers supplied themselves, while in others there was not; and the good effect of the lime was so obvious, that the farmers in the non-limestone counties transported limestone from the others to manure their lands. In some parts of Pennsylvania and Maryland, the roads are macadamized with limestone, which, becoming finely pulverized, is blown by the wind upon the adjoining fields, and it is found that the land along these roads is fertilized exceedingly by the lime thus thrown upon it. It is the practice among farmers in Cumberland, Dauphin and Franklin counties in Pennsylvania, and in Maryland, to apply 80 bushels of unslacked lime per acre once in about seven years, plowing it in after it becomes pulverized by the action of the sun and rain. They do not expect much from it the first or second year, but during the third and fourth they reap the benefit.

Mr. HOWARD said he did not deny that lime was an essential element of the soil, and constituted a part of the food of plants, which should be supplied with the proper quantity; but he did not think that the state of things in Pennsylvania was a just criterion for the granite soils of New England.

Col. NEWELL, of Essex, said that wheat did not grow so well in his county now as formerly. He had known 40 bushels to the acre to be raised, but that quantity gradually fell off to 5 or 6 bushels. What the reason was he could not tell. Latterly they had succeeded better; but of this, also, he did not know the cause. He had raised wheat for thirty years, getting all the way from 40 down to 5 bushels to the acre. Had never used lime but once, applying then ten casks to the acre, and harvesting 20 bushels of wheat per acre. The land was laid down with grain to grass, and he got two large crops from it; but whether it was owing to the lime or not, he could not say. There is something in the land which will not produce wheat, while it will yield larger crops of grass than ever before.

Mr. JENKINS inquired in regard to planting wheat in drills, and was answered by Mr. HOWARD, who said that this method was pursued to some extent in New York and Pennsylvania. By it the land could be kept free from weeds, and thus promote the growth of the grain.

Hon. SETH SPRAGUE, of Duxbury, said that Mr. Webster, when he first commenced farming at Marshfield, purchased seven cargoes of lime and applied it to his land; but of its specific effect, he could not speak, although its use was discontinued subsequently, and it was thought by farmers in that vicinity that it was of no benefit to the land. In his opinion, it exhausts the land.

Mr. JENKINS related an instance in which a friend of his purchased a large quantity of lime, and applied it to his land for various crops, but he could not raise a thing.

Mr. BRADBURY remarked that this last case verified his statement in regard to the use of lime in Pennsylvania, where they do not expect much profit until the third and fourth years, by which time the land is restored to its natural strength. Besides, farmers there put on vast quantities, much more than farmers here would think of doing.

Mr. BUCKMINSTER, of the *Ploughman*, inquired what use was made of the land for the first two years, to which Mr. Bradbury responded, that once in four or five years, they put in clover. The farmers there do not calculate on getting grain from the land more than half of the time. The lime does not tell till the third and fourth years, after which, the land again declines.

Mr. BUCKMINSTER thought that at this rate farmers could hardly afford to put on 80 bushels to the acre.

Mr. BRADBURY said that the lime was manufactured very cheaply there, owing to the abundance of a poor quality of wood which was not profitable for marketing, and they were not so particular in burning the lime as if it were to be used for building purposes. He had made it himself at a cost of only 5 cents per bushel, and it could be bought for 8. He would not recommend its use here. He simply made a statement of what he had seen and known; but thought the matter should be considered by farmers.

Col. NEWELL thought that lime would be a cheap manure at the cost here, if it would produce similar effects on our soils, and last seven years. Farmers here cannot manure their land so cheap, under the present system.

Mr. PROCTOR, of Danvers, said two purposes were to be regarded—first, to raise grain, and second, to fit the land for grass. In his early days, barley was an excellent grain to lay down land with; it paid well, and he had known 40 bushels per acre to be raised with common manuring. It had to be abandoned, however, for awhile, owing to a blight caused by an insect; but latterly it is coming forward again, and is a very fair crop for seed and grass. Rye, in Essex county, is the most profitable crop the farmer can raise, and for eight or ten years he had known it

to yield 35 to 40 bushels to the acre, of fine grain, and this on a rocky, shallow soil. It was done by thorough plowing—9 to 12 inches,—and liberal application of manure, of home manufacture. The crop of straw often yields $10 or $15 per acre. Of wheat, any man, with good cultivation, can raise 30 to 40 bushels per acre; this had been demonstrated by Mr. Poor, of Andover. Oats, too, may be cultivated to good advantage; he had known 50 bushels per acre to be raised. All these grains can be raised advantageously, with good cultivation—the ground well pulverized and manured. He did not believe lands could be manured well, except with that made on the farm.

Mr. Dodge, of Sutton, said that cereals had not proved a profitable crop in Worcester county. Ten years ago, 50 or 60 bushels of barley per acre were obtained, but of late years, no grains could compare with grass as regards profit. He would like to know if there was any method by which they could secure good grain crops in that county. He thought the rye crop might be made profitable to farmers, on account of the demand for the straw. He did not think lime could be used in Massachusetts. It is a deadly enemy to the manure heap, dissipating the ammonia which it contained, and if used on land in connection with other manures, would produce the same effect.

Col. Newell said that a few years ago, barley died out in Essex county, but last year he raised 50 bushels to an acre, and he thought it was coming round again.

Mr. Jenkins made the same remark in regard to barley, and rye, also. He considered rye the most profitable grain crop which can be raised in the eastern part of the State. He would like to hear this revivification of crops explained. Was it owing to the soils or the atmosphere? He referred to the fine wheat crops of Mr. Poor, alluded to by Mr. Proctor, and remarked that he had seen them. Other farmers in the place had equally good crops, but for the last few years, and since Mr. Poor sold his farm, good crops have not been raised, and the crop seemed to have left them. He wished farmers to try experiments on a small scale with lime and other manures, to see if the small cereal grains could not be raised with a certainty of good crops.

Mr. Flint, Secretary of the Board of Agriculture, read some statistics collected by him the past year, showing the average crop of certain grains in different counties of the State the past season. Of oats, in Essex, an average of 35 bushels to the acre, at a cost of $11, not including manures. Worcester, 25 bushels, at a cost of $9. Barley—Essex, 28 bushels, at cost of $11, crop one quarter less, on account of drought; Middlesex, 15 bushels, $9,50, crop one-third less on account of drought; Worcester, 25 bushels. Wheat—Essex, 12 bushels; Middlesex, 18;—Worcester, 15; Berkshire, 17; Hampden, 15; Franklin 15.

Mr. Fay, of Essex, made some interesting remarks in regard to the culture of grain in this country and in England. He thought that the decline in the production of wheat in this State was owing to the system of cultivation which had been pursued. We began by cutting down the forests and raising wheat without manure, until those qualities required by it are exhausted; and this system is still being pursued all over the country. In England and Scotland, where he had travelled extensively, the same system was at first pursued, getting large crops at the outset, and then rapidly diminishing. To remedy this evil, they resorted to underdraining, high cultivation, and rotation of crops, and by this means their exhausted lands have been made the finest in England. Lime is there considered an essential ingredient, and it has been applied to all these lands. Our lands can be brought to the same high state of cultivation, by a proper rotation of crops and high manuring, and he was confident that Massachusetts could grow wheat as well as any other State in the Union, when we pursue the right course in this respect. He knew of no better land anywhere for growing wheat than the valley of the Merrimack. Drilling is the only mode of planting grain in England, and almost every other crop is planted in the same way, a machine being used which manures the ground and drops and covers the seed at the same time. The crops are also hoed while growing, which adds greatly to the yield. The wheat crop in England and Scotland, is a certainty, on account of systematic cultivation. Mr. Fay thought the great variation in the yield of wheat on the same soil in this country, was owing wholly to a variation in its cultivation. It had not failed in Egypt for 900 years, and need not here if the land is properly cultivated.

After a few remarks from Mr. Proctor in regard to manures, the meeting, at a few minutes past 9 o'clock, adjourned.

Wire Fences.—Charles Cowley, Esq., of Lowell, the Agent of the Manufacturers of Wire Fences, has prepared a lecture or two on the subject of fences, which he will deliver upon invitation. He has drawings to illustrate his subject, and will be able to give some startling facts with regard to the cost of fences in the State, as well as to suggest how the object of fencing may be effected at a less cost, and with infinitely more beauty and harmony with the natural scenery of the farm.

THE VALUE OF APPLES.

In some of the Eastern States, apples are extensively used for feeding and fattening stock in winter; and, while we are setting out orchards in the west, it is worthy of consideration whether we may not devote a portion of our farms to this express purpose, independent of any idea of selling or eating the fruit ourselves. And this question acquires a greater importance since we have been deprived of potatoes, and are unable to find any root-crop which will supply the deficiency. What every farmer needs during winter is some root or fruit, containing a large amount of water or juice, with positive nutritive qualities, afforded at a low price. Apples, when once planted, cost nothing but the gathering and the interest. They keep well, with slight trouble, during winter; properly planted, they are a very certain crop; the only thing to be decided, therefore, is, are they sufficiently nutritive to render them worth growing for the fattening of stock? Dr. Salisbury, of Albany, N. Y., has studied them with this very point in view; and we abstract the following from his report, which we recommend to the careful study of every farmer:

Per centage of water and dry matter in the

	Swaar.	Tolman Sweeting.	Roxbury Russet.	Rhode Island Greening.
Water	84.75	81.52	81.35	82.85
Dry matter	15.25	18.48	18.65	17.15
Ash	0.26			

Mean inorganic analysis of the composition of five varieties of apples (without carbonic acid.)

Silica, (sand)	1.637
Phosphate of iron	1.503
Phosphoric acid	13.267
Lime, (bones)	4.199
Magnesia	1.669
Potash	37.510
Soda, (common salt)	24.799
Chlorine.....do	2.169
Sulphuric acid	7.229
Organic matter	5.823

Thus the salts of the apple are, chiefly, potash, soda, bones and plaster—using the common names.

Mean analysis of the organic (or feeding matter) of the apple, compared with the same in the potato; and of 1000 *parts of the "Tolman Sweeting."*

	1000 parts fresh sweeting.	100 lbs. fresh apple.	100 lbs. fresh potato.
Cellular Fibre	33.90	3. 2	5. 6
Glutinous matter, } fattening	3.52	0. 2	0. 2
Fat and wax, } substances			0. 8
Dextrine	28.96	3. 1	1.27
Sugar and extract	99.05	8. 3	2.64
Malic acid	2.50	0. 3	
Albumen, } flesh-forming	8.97	1. 4	1
Casein, } matter	0.89	0.16	0.45
Water	815.20	82.66	79.7
Starch, (fattening)	none	none	9. 9

By comparing the composition of the apple with that of the potato, it will be noticed: 1. That the former contains about 3 per cent. more of water than the latter. 2. That the dextrine and sugar in the apple take the place of the starch, dextrine and sugar in the potato. The above principles are the main bodies in the apple and potato, which go to form fat. In the aggregate amount of fat-producing products, the apple and potato do not materially differ. It would be natural, however, to infer that 50 lbs. of dextrine and sugar would, if taken into the system, be more likely to make a greater quantity of fat in a given time, or at least to make the same amount in a shorter period, than an equal weight of starch, for this reason, that the two former bodies, although nearly the same in composition with the latter, yet are physically further advanced in organization, and hence, probably, approximate nearer the constitution of fat. If this view be taken, then the apple may be regarded equally, if not more rich in fat-producing products than the potato. 3. The apple is richer in nitrogenous compounds than the potato. In albumen the apple is richer than the potato, while in casein the reverse is the case. The aggregate amount of albumen, casein and gluten, in good varieties of the apple, is more than double that of the same bodies in the potato; hence the apple may be regarded as richest in those substances which form muscle, brain, nerve, &c., and build up and sustain the important portions of the body. The difference between sweet and sour apples appears to be, that in the first the fat-producing, and in the other the muscle-forming compounds abound. A *sweet* apple is superior for a fattening or milking animal; the sour apple for one that is working. But, practically, the difference is greater than the analysis would show; the *sweet* apple not only contains a larger amount of unformed fat, but the acid of the sour apple tends to destroy or prevent the deposit of fat in an animal; and, as is well known, sour apples will dry up a milch cow, while sweet ones add to the milk. The money value of apples, compared with potatoes, may be stated somewhat as follows: for fattening, 1000 lbs. of *sweet* apples are worth about 1050 lbs. of potatoes; for feeding to growing or working stock, 1000 lbs. of good sour apples are equivalent to 2000 lbs. of potatoes; and, in practice, should produce the same effect. So that, in the first case, a farmer would only be justified in paying 25 cents a bushel for apples; in the latter, he might pay 50 cents without losing. (By the word "sour" we mean any that are not *positively* "sweet.")

According to Dr. Salisbury's analysis, no two varieties are exactly alike in composition or water, the proportions constantly differing. Thus, in six kinds, he found the water to vary from 79 to 86 per cent.; or, in other words, a person buying 100 lbs. of each, got 7 lbs. more pure water in one lot than another; and, consequently, lost to that extent. It were an interesting investigation which are actually the cheapest—the small and hard, or the overgrown and soft apples. We suspect that there is as much nourishment in three-quarters of a bushel of "Rhode Island Greenings" as in a whole bushel of "Monstrous Pippins."

In conclusion, we call upon such western farmers as expect to remain on their farms, to *set out apples*. Select your orchard carefully for your own use and for sale; and then plant all over your farm, in fence corners and every vacant spot, good sweet apples; and even put them in your fields, at 40 or 50 feet apart, and set four posts round them to prevent cattle and plows hurting them. Every tree that yields, on an annual average, twenty bushels of apples, or forty bushels each alternate year, is worth $100 invested at five per cent.; and by planting orchards, you are leaving a fortune to your posterity, or adding to the value of your farm if you wish to sell it.—*Farmers' Companion, Detroit.*

HAS THE MOON AN ATMOSPHERE?

The astronomical world has been a long time in doubt whether the moon has an atmosphere or not, though the most accredited opinion is that it has not, at least, none of sufficient density to conform to our optical laws and the demands of any animal life known to us. The *New York Courier* announces, on the authority of "one of the most eminent mathematicians and astronomers of the world," that the side of the moon nearest this world is sixteen miles higher than the other. If, therefore, we suppose that the moon has an atmosphere such as ours, it would be of such extreme rarity on the only side exposed to our observation, that for optical effect and animal life it might as well not exist. For mountains upon the earth, none of which are over five miles above the level of the sea, have been ascended to a height at which life could not be supported for any length of time, and still mountains have stretched above the panting traveller. What, then, must be the atmosphere at four times such an elevation. The conclusion seems inevitable that, although the hither side of the moon is uninhabitable for want of an atmosphere, the remote side may be perfectly adapted to animal life. It is at least certain that the mere want of an atmosphere perceptible to us is no longer conclusive as to the uninhabitableness of the planet that rules the night.—*Phil. Ledger.*

HON. MARSHALL P. WILDER.

Under the head of "Mercantile Biography," *Hunt's Merchants' Magazine* for January contains a rapid sketch of the life and various pursuits of the gentleman named above, together with a most life-like portrait. In the *Courier* we find a condensed notice from the article in the Magazine which we subjoin.

"Mr. Wilder has been a successful merchant in Boston, for thirty years, and is now of the respectable and well-known firm of Parker, Wilder & Co., 5 Pearl Street. Mr. Wilder is a Director in the Hamilton Bank, the National Insurance Company, the New England Life Insurance Company, and other like institutions—in the first two of which he has held office for more than twenty years. Although trade has been his chief business, and to which he has made all other pursuits subordinate, yet by a rigid economy of time, and a strict adherence to system, he has been enabled to contribute extensively for the promotion of the agriculture and horticulture of our country. At the present time he holds the offices of President of the United States Agricultural Society, of the American Pomological Society, and of the Norfolk Agricultural Society. He is also a member of the State Board of Agriculture, and was eight years President of the Massachusetts Horticultural Society. He has filled other important offices, both civil and military; has been President of the Senate, and member of the Executive Council. Few men have done so much for the cause of rural improvement, and to elevate the profession of the farmer. Well does his biographer remark: "His valuable services in the cause of agriculture and of horticulture have made him extensively known on both sides of the Atlantic, especially to the yeomanry of the United State. His virtues have a practical existence, benefiting and ennobling the whole community; and his name will fill a page in history that will suffer no detriment by the lapse of years, and which will have its interpreter on every hillside and in every valley where rural taste and refinement are found."

We know Col. Wilder well, and have long believed that few men "magnify their office" with more untiring fidelity, or with more practical benefit to the world. His labors, aside from his legitimate pursuits, as a horticulturist, and in fact every kind of culture of the earth, have been constant and earnest, and have promoted the cause in many ways. We have room at present for only a few of the paragraphs of the very interesting biography.

"A more familiar acquaintance with Mr. Wilder's natural endowments and private habits, discloses the manner in which he has been enabled to make so extensive attainments, and to pursue objects so various. Blessed by nature with quick perceptive faculties, and unusual versatility of mind, he acquires with ease and rapidity, and readily applies his acquisitions to his numerous and varied employments. Besides, he is a rigid economist of time, a close adherent to system. Every hour has its appropriate business, which is attended to in its appointed season. In the evening and at early dawn, he is in his well-selected and valuable library, either investigating subjects which the labors and scenes of the past day have suggested, or planning the business of the approaching day.

"In 1840, he was elected President of the Massachusetts Horticultural Society, an office which he filled with honor to himself and that association for eight years. During his administration, it greatly increased in the number of its members, in its resources, usefulness and respectability. It erected its beautiful hall in School Street, at the laying of the corner-stone, and the dedication of which he delivered appropriate speeches. It held two triennial festivals in Faneuil Hall, occasions which congregated the elite of city and country, and which will long be remembered for their luxurious entertainments, and for their soul-stirring speeches from Webster, Everett, and other chief masters of eloquence. When he retired from the office, the society accompanied its resolutions of thanks with a silver service, as a substantial testimonial of its gratitude for his valuable labors.

"In 1851, Mr. Wilder, with others, called a convention of delegates from local agricultural in the State to meet them in the State House, in Boston, and of that body he was chosen president. This, with the preceding action, led to the creation of a permanent Board of Agriculture by the Legislature, sustaining a similar relation to this industrial art as the Board of Education does to the system of common instruction—having its own laws and secretary, and constituting a co-ordinate branch of State government. Of this Board, Mr. Wilder has been a member from the beginning, and has taken a prominent part in all its deliberations and actions. It has a department in the capitol, with a secretary who superintends the farm connected with the State Reform

School in Westborough, exerts a salutary and powerful influence upon the agriculture of the Commonwealth, and promises to do still more for its advancement."

EXTRACTS AND REPLIES.

A FINE APPLE.

I send you a sample of *sweet apples* raised by me, for a name. Our pomologists do not know the fruit, and I think it is too good to be nameless. It resembles in a good degree, Downing's "Ladies' Sweeting," but is not identical. It has long been a desideratum with us to obtain a first-rate winter sweeting, and this is the best we have found. It is a great bearer and keeps well.

Yours truly, GEO. A. CHAMBERLAIN.

Worcester, Dec., 1854.

REMARKS.—This apple, like the Ladies' Sweeting, has a pleasant perfume, and fine, sprightly flavor. The skin is a beautiful red, but has not the yellowish-gray dots of the former. We submitted the specimens sent, to two or three good judges, who could not recognize it, and while looking at them a gentleman on his way to the Horticultural Rooms brought in a basket of apples for our examination, which proved identical with yours. They were then presented at the Rooms, but could not be named.

The apple is not only attractive in its appearance, but is of fine texture and flavor, and with the other good qualities given it by Mr. Chamberlain, will prove a valuable variety.

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COWS GNAWING BONES.

I have a cow, the moment she is turned out is in search of a bone, and if she finds one, will stand and chew it for hours; a year or two ago, I read something about it, but I have forgotten what it was. Will you or some of your correspondents please inform me. WM. DURANT.

Leominster, 1855.

REMARKS.—By reference to former volumes of the Monthly *Farmer*, you will find the cause of this pretty fully discussed. Pound a few bones as finely as possible, and feed to your cow; or purchase a bag of bone-dust, and feed a little of that to her, and when she is turned to pasture she will give her attention to the grass rather than to the "old bone." Bone-dust is sold at the agricultural warehouses, in bags, for 75 cents for about 25 lbs. of the dust. Every farmer should have it.

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DEAR SIR:—The information contained in the items below, is so curious, that I cut the slips from an English newspaper, given to me to read to-day, by an Englishman who works on my farm, and send them to you, supposing you may like to put them in a corner of your paper. Wishing you a happy new year, your friend,

Washington, D. C., 1855. T. B.

"Around Aylesbury the annual return for ducks is £40,000. One man has had 1000 to 2000 ducks, and paid £50 at a time for barley meal."

"The Agricultural Society of Clermont, in the department of the Oise, has recommended the use of that agricultural nuisance, couch-grass, as a substitute for malt in the making of beer."

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THE BARLEY CROP.

C. S., South Hawley, Franklin County, urges upon the farmer the importance of giving more attention to the barley crop; says that barley flour makes good bread, and that it may take the place of wheat flour with advantage to health as well as the purse, when the latter is selling at $12 per barrel.

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CONCRETE HOUSES.

We have already referred, at considerable length, to the work on Concrete Houses.

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CHEAP FENCES.

MR. EDITOR:—I wish the writer on cheap fence would be more explicit; state how long the stakes must be soaked, and how many can be prepared in a certain quantity of the preparation. ALPHEUS FLETCHER.

Shelburn, 1855.

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YOUNG CATTLE'S HORNS.

I would inquire of you, or some of the numerous readers of the *New England Farmer*, if the *shape* of steers, or any young cattle's horns, can be altered, and the best time and process of doing it. S. F. ALGER.

Winchendon, Jan. 8, 1855.

REMARKS.—Will some of our experienced friends reply.

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From N. P. M., *Somerville*.—The apple you sent in, if now in its season, would be hardly worthy of cultivation among the excellent varieties we already possess. The flesh is soft and dry, and though not remarkably acid, yet with a vinegar tinge, that is not agreeable. The *Jewett's Fine Red* are very handsome.

THE SKILFUL HOUSEWIFE'S BOOK.—This is another of SAXTON'S books, containing 659 Receipts, pertaining to Household Duties, the Care of Health, Gardening, Flowers, Birds, Education of Children, &c. The work was compiled by Mrs. L. G. ABELL, and as the Publisher's preface says, "is the production of a highly-gifted and disciplined mind," and "teaches in the broadest sense, the *Science of Life*." It will be found exceedingly convenient to every housewife who does not know everything herself, if there is any such.

MEXICAN GUANO.—The reader is referred to an advertisement in another column relating to "Mexican Phosphatic Guano."

HINTS FOR TEACHERS.

The main and almost undivided attention of teachers should be given to the business of giving instruction while they are engaged in the employment. They cannot do a day's work, nor half a day's work in some manual labor or mercantile affairs, and do a day's work in the school-room at the same time. They may work a little when out of school for exercise, and to allow the mind to unbend, after the mental labor and perplexities of the day are over. One-half and perhaps two-thirds of the teachers need to spend several hours when out of school, in looking over the lessons that are next to come up in lhe classes, that they may have everything familiar, and bring up questions not in the books, that will unfold the various principles of the sciences.

It is not consistent for teachers to spend their evenings with loafers at shops and in bar-rooms. We have known a few to do so, and even to take a glass of liquor. In the same connection it may be said that while social visits may be made and with parties that make them, yet those that are for mere amusement should be avoided, if they would maintain proper dignity. Allusion is here made to those in which there are what are called "plays," and also the amusement of dancing. Of this last we do not think well at any time, but especially it should be avoided while teaching or attending school. An evening spent in the dancing hall, with the heat and fatigue of the mind, renders one altogether unfit for much effort with books the ensuing day. And if teachers dance with their pupils, they let themselves down so as to lose the respect of the wise and discreet.

Some who attend school may carry things with them that do not belong there. Among these may be named pocket-knives for the purpose of swapping with their companions. Newspapers and pamphlets of light reading. Books that are tales of fiction. A gun to hunt in the woods at noon or after school in the afternoon; a pack of cards for gambling. When these or anything of the kind are brought to the school-house, teachers should see that they are removed at once. If those that have them show the least obstinacy they must be disciplined, and if necessary the superintending committee must be called on to remove them from the school.

The proper business of the school is important. There is a prize to be gained more valuable than a mine of silver or gold. There is a treasure to be secured that may be of infinite worth here and hereafter. Let nothing be brought in the way of attaining the prize and the treasure.—*Exeter News-Letter*.

BEAUTIFUL INCIDENT.

[A correspondent of the Preston (England) *Chronicle* gives the following anecdote:]

"A good while ago a boy named Charlie had a large dog which was very fond of the water, and in hot weather he used to swim across the river near which the boy lived. One day the thought struck him that it would be fine fun to make the dog carry him across the river, so he tied a string to the dog's collar, and ran down with him to the water's edge, where he took off all his clothes; and, then, holding hard by the dog's neck and the bit of string, he went into the water, and the dog pulled him across. After playing about on the other side some time, they returned, as they came; but when Charlie looked for his clothes, he could find nothing but his shoes. The wind had blown all the rest into the water. The dog saw what had happened, and making his little master let go the string, by making believe to bite him, he dashed into the river, and brought out first his coat and then all the rest in succession. Charlie dressed and went home in his wet clothes, and told his mother what fun he and the dog had had. His mother told him that he did very wrong in going across the river as he had done, and that he should thank God for making the dog take him over and back again safely; for if the dog had made him let go in the river he would most likely have been drowned. Little Charlie said, 'Shall I thank God now, mamma?' and then he kneeled at his mother's knee and thanked God; then, getting up again, he threw his arm round his dog's neck, saying, 'I thank you, too, dear doggie, for not letting me go.' Little Charlie is now Admiral Sir Charles Napier."

Milk in Bread.—I have more objections than one to milk in bread, but the most serious is, that persons of advanced age, who are in the daily use of milk-made bread, will be expected to suffer from an over supply of osseous or bony matter, and particularly if their kidneys be affected. Bread should always be made with water, and when so made it is suitable for the aged and the young, the sick and the well. And as for sour milk, a microscopic view would, I presume, present additional arguments against its use.—*Water Cure Journal*.

What a Mowing-Machine can do.—The *Springfield Republican* states that Captain Samuel Parsons, of Northampton, cut, made, and put into his barns, sixty-two loads of hay during the first week in July, commencing on the 3d, besides mowing for others to the amount of $40 in the same time. The whole was accomplished with what would be equivalent to the labor of one man for thirty-eight days. He mowed in one day, and in less than nine hours, eleven acres, producing from two to two and a half tons per acre.

Thaxter's Rotary Calendar.—A neat, convenient and useful article for the library-table or store-desk, has recently appeared for sale at the stationers in this city, which combines a wafer-stand, pen-rack and rotary calendar, which gives the month and the date of each day of the week. They are neatly japanned and bronzed, and make a tasteful ornament. They are manufactured and sold at No. 78 Commercial Street. We would recommend them to our literary and mercantile friends as one of the most useful inventions of the times.

☞ Readers will please notice the advertisement of Hiram Blackmer, in this number. Macomber's Hay-cutter possesses qualities which are claimed by no other machine, and purchasers will do well to examine it.